

Site # 1802

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

AKA Dover LF#2

DOVER LF#2

Route 22, Westside Site No. 314029
Town of Dover Dutchess County

NYA 980508139

DATE: October 1989

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BUREAU OF
HAZARDOUS SITE CONTROL
DIVISION OF HAZARDOUS
WASTE REMEDIATION



Prepared for:
New York State
Department of
Environmental Conservation

50 Wolf Road, Albany, New York 12233
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By:
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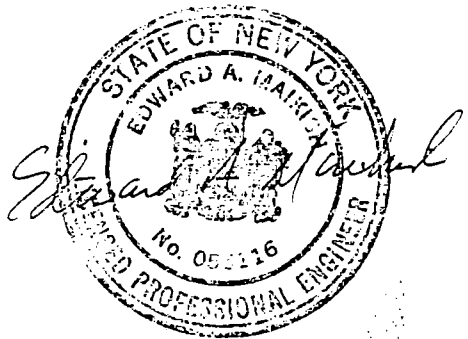


ENGINEERING INVESTIGATIONS AT
INACTIVE HAZARDOUS WASTE SITES
IN THE STATE OF NEW YORK
PHASE I INVESTIGATIONS

ROUTE 22 WESTSIDE
Town of Dover
Dutchess County
Site No. 314029

Prepared For:

DIVISION OF HAZARDOUS WASTE REMEDIATION
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road
Albany, NY 12233-7010



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CHAPTER 1

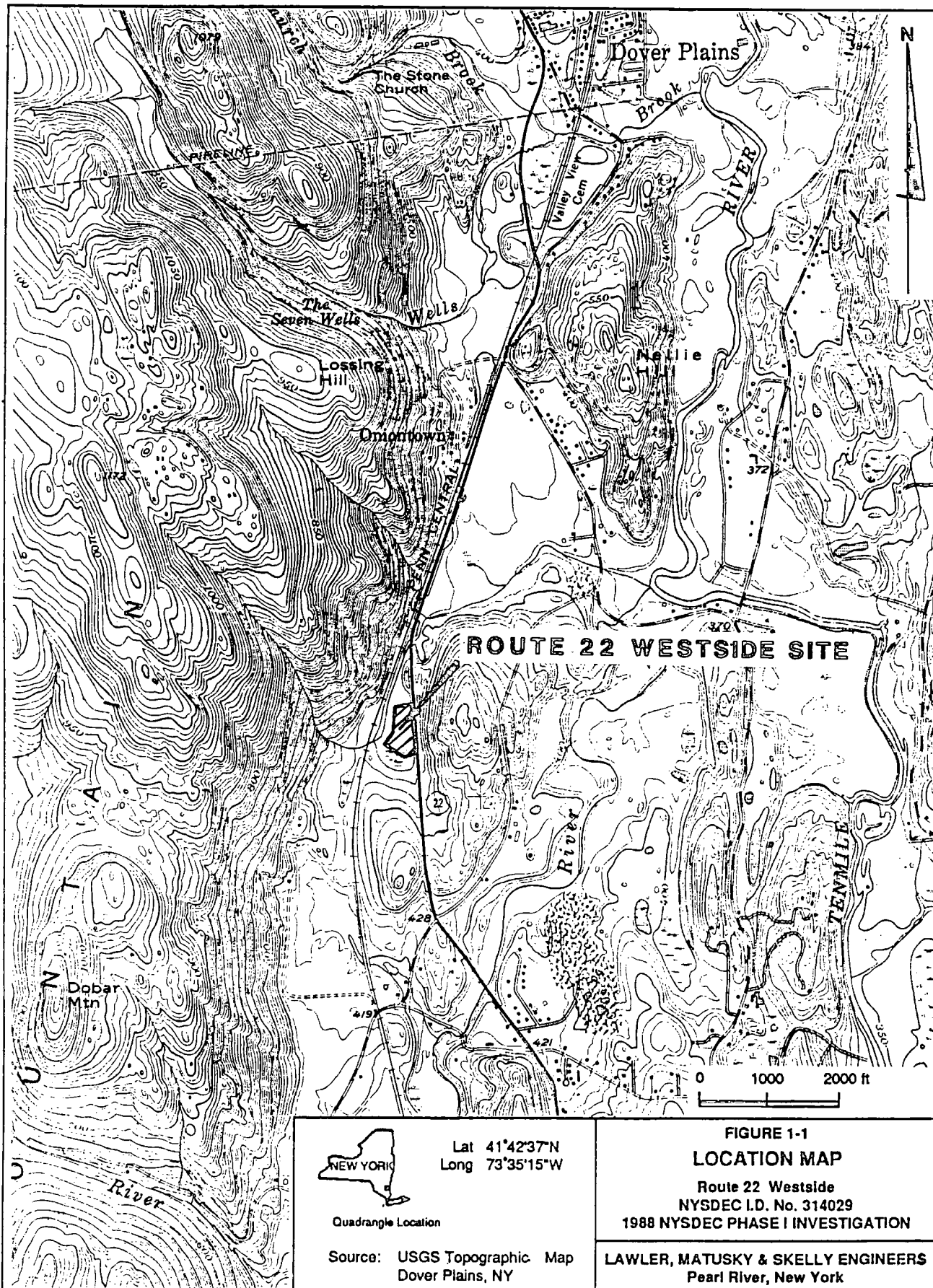
EXECUTIVE SUMMARY

The Route 22 Westside site is located in the Town of Dover, Dutchess County, New York. The site lies approximately 1.75 miles south of Dover Plains, immediately west of Route 22. A stream and wetland form the site's southern boundary. A marsh and intermittent stream form the northern boundary. The area is wooded and sparsely populated. Private residences are located approximately 1800 ft southeast of the site (Figure 1-1). Figure 1-2 illustrates the area of concern on the property.

The Town of Dover used the site for an unknown number of years to dispose of its municipal waste. Poor waste disposal practices were observed during its operational life. Leachate has been observed emanating from the landfill. One leachate sample was collected in 1979 by the Dutchess County Health Department (DCHD). Iron and phenol were the only compounds detected. A 1983 NUS Corporation (NUS) site inspection observed the covered landfill supporting trees and vegetation. Ponded water on the south side of the landfill was observed.

Lawler, Matusky & Skelly Engineers (LMS) inspected the site on 15 December 1988 as part of a Phase I investigation (Photos 1-1 to 1-3). Site conditions were similar to those at the time of the 1983 NUS site inspection. Empty drums found on-site probably were discarded after the site was closed.

The Phase I investigation also included a review of information gathered from the U.S. Environmental Protection Agency (EPA), the



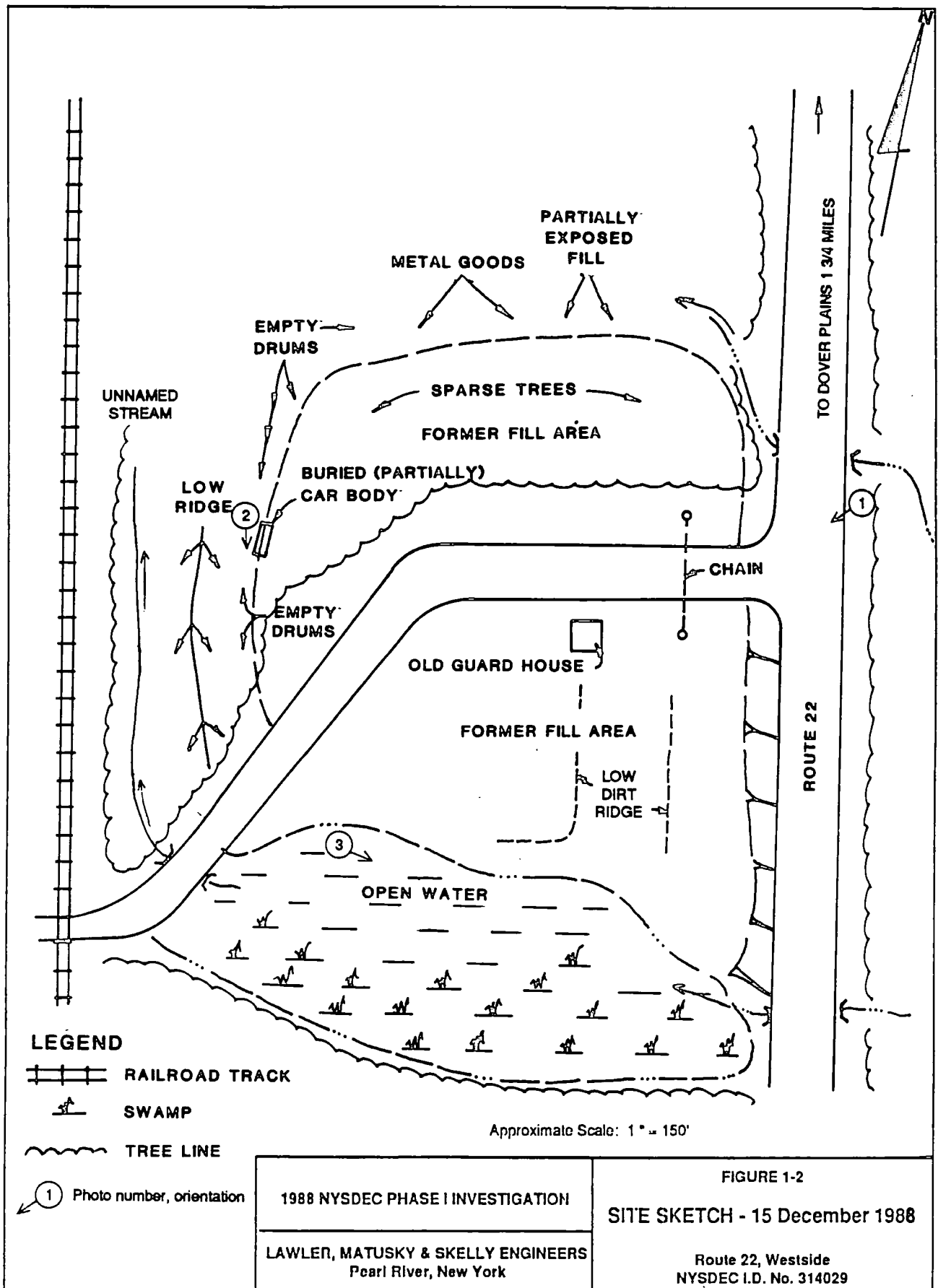




Photo 1-1. - Route 22 Westside. Looking southwest across Route 22 at the site's southern fill area.



Photo 1-2. - Route 22 Westside. Looking south at the empty drums on the land adjacent to the northern portion of the landfill. Note the low ridge on the right.



Photo 1-3. - Route 22 Westside. Looking east at edge of fill in wetland. Route 22 is in upper portion of the picture.

New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH), and DCHD.

During the Phase I effort, information on the site was compiled from state, Federal, county, and municipal offices as well as private concerns. General information on the area was obtained from the LMS library, an inspection of the site, and interviews with personnel associated or acquainted with the site's history and/or operations. All of the material collected was reviewed to prepare this report, which provides a history, preliminary assessment, and preliminary score of the site based on EPA's Hazard Ranking System (HRS).

EPA uses the HRS to apply uniform technical judgment in evaluating the relative hazards presented by the sites being considered for Federal Superfund remediation. The HRS addresses only relative hazard. It does not assess the feasibility, desirability, or degree of cleanup required, and does not address all potential environmental or health impacts.

Under the HRS three numerical scores are computed for each site to express the relative risk or danger from the site, taking into account the population at risk; the hazardous potential of substances found at the site; the potential for contamination of drinking water supplies, for direct human contact, and for destruction of sensitive ecological systems; and other appropriate factors. The three scores are:

- o S_M , reflecting the potential for harm to humans or the environment from migration of a hazardous substance from the facility by groundwater (S_{GW}), surface water (S_{SW}), or air (S_A). It is a composite of separate scores for each of the three routes.

- o S_{FE} , reflecting the potential for harm from substances that can explode or cause fires.
- o S_{DC} , reflecting the potential for harm from direct contact with hazardous substances at the facility.

Fire and explosion (S_{FE}) and direct contact (S_{DC}) are also scored numerically, but are not considered in the final HRS score.

Based on information gathered from this investigation, the Route 22, Westside site was scored as follows:

S_M = not scored (S_{GW} = not scored; S_{SW} = 4.00; S_A = 0)

S_{FE} = not scored

S_{DC} = 25.00

Because of the lack of data or documentation to support any conclusions about the site, a stepped sampling program is recommended.

Preliminary studies should include residential well water, surface water, leachate, and sediment sampling analyses together with a soil gas survey with groundwater and leachate sampling. Based on the data from the preliminary studies, the site can either be delisted to Bureau of Municipal Waste (6 NYCRR Part 360 [Solid Waste Management Facility]) supervision or a Phase II investigation can be conducted. This investigation should consist of geophysical studies, monitoring well installation and sampling, additional soil and surface water sampling, site survey, and a report outlining results and recommendations.

CHAPTER 2

PURPOSE

The Route 22 Westside site is listed in NYSDEC's Inactive Hazardous Waste Disposal Site Registry as a Class 2a site, a temporary classification for which there are inadequate data and information to properly assign the site to one of five other active classes (including delisting).

A Phase I site investigation is intended to provide (1) a preliminary assessment of hazardous substances present at the site, pollutant migration pathways, and the population or resources that might be affected by pollutants from the site; (2) observations of past disposal practices; and (3) information on those responsible for the wastes at the site.

The objectives of this Phase I investigation were to:

- o Review appropriate agency files to determine site history and collect and summarize pertinent analytical data.
- o Inspect the site for existing conditions and any visible signs of environmental damage.
- o Complete a preliminary HRS score.
- o Prepare a summary report.

This information is used to determine whether there is a threat to the environment. Where appropriate, further actions or investigations are recommended.

CHAPTER 3

SCOPE OF WORK

Files from appropriate agencies were reviewed to collect information about the site. Table 3-1 records agency and landowner contacts.

LMS conducted a site inspection on 15 December 1988 to document existing environmental conditions, prepare a site sketch, and investigate the existence and possible migration pathways of contaminants at the site. The weather during the site inspection was sunny, with a light breeze. Temperature was 40°F. Snow and ice were observed but did not hinder the inspection. Air monitoring was performed during the site inspection with an HNU photoionization detector and an explosimeter (Exotox 40). Table 3-2 summarizes the monitoring results.

The access road from Route 22 traverses and bisects the former landfill (Figure 1-2) into a northern and southern half. The site was covered and well vegetated. Trees were observed growing in the landfill, especially the northern half. No odors or instrument deviations were noted. The northern and western landfill slopes were littered with bulky metal goods, empty drums, and tires. The drums on top of the cover material were probably discarded at the site sometime after landfill closure. No leachate was observed in either the marsh to the south or the stream to the north.

TABLE 3-1
SITE CONTACTS

Route 22 Westside NYSDEC I.D. No. 314029

CONTACT	RESULT
EPA, Region II 26 Federal Plaza New York, NY 10278 Permits Administration Branch Michael Soranno 212-264-9880 Site Investigation Section Jeffrey Gaal 212-264-6668 Edison, NJ 08837 Surveillance and Monitoring Branch Sandy Hansen 201-906-6808	No file File reviewed File reviewed
NYSDEC 50 Wolf Road Albany, NY 12233 DHWR/BHSC Michael Komoroske 518-457-0639 DSHW/BMW Michael Hill 518-457-2051 21 South Putt Corners Road New Paltz, NY 12581 Ram Pergardia 914-255-5453	File reviewed File reviewed File reviewed
New York State Department of Health 2 University Place Albany, NY 12237 William Lowden 518-458-6305	File reviewed
Dutchess County Health Department 22 Market Street Poughkeepsie, NY David Ruff 914-431-2044	File reviewed
NUS Corporation 1090 King George Post Road Edison, NJ 08837 Charles LoBue 201-225-6160	File reviewed
Martin S. Spellman, Sr., Esq. 34 South Broadway White Plains, NY 10601 914-997-0200	Lawyer for owner
Whitney Aggregates, Inc. c/o Mr. James Hosie Rd 2 Box 369F Rhinebeck, NY 12572 914-229-7725	Owner, permission for site access, and site history

TABLE 3-2

LMS SITE INSPECTION AIR QUALITY DATA

Route 22 Westside NYSDEC I.D. No. 314029

TIME	LOCATION	METER	MEASUREMENT
1541	Background	HNU Exotox	0.2 ppm O ₂ - 20.7% TWA - 0 ppm H ₂ S - 1-2 ppm LEL - 0%
1550	South side of landfill	HNU Exotox	0.2 ppm O ₂ - 20.7% TWA - 0 ppm H ₂ S - 1-2 ppm LEL - 0%
1600	Empty drums (northwest side)	HNU Exotox	0.2 ppm O ₂ - 20.7% TWA - 0 ppm H ₂ S - 1-2 ppm LEL - 0%
1615	North side of landfill	HNU Exotox	0.2 ppm O ₂ - 20.7% TWA - 0 ppm H ₂ S - 1-2 ppm LEL - 0%
1625	Northeast side of landfill	HNU Exotox	0.2 ppm O ₂ - 20.7% TWA - 0 ppm H ₂ S - 1-2 ppm LEL - 0%

O₂ - Oxygen.

TWA - Time-weighted average.

H₂S - Hydrogen sulfide (Tox on meter).

LEL - Lower explosive limit (Exp on meter).

CHAPTER 4

SITE ASSESSMENT

4.1 SITE HISTORY

The Route 22 Westside site is currently owned by Whitney Aggregates, Inc. Mr. Stanley Lewis of Katonah, New York, previously owned the site. Mr. Fred Lee (deceased) owned the property during the time the site was used as a landfill. The Town of Dover operated the site as a landfill for town residents only.

Landfilling began in 1967 (Ref. 1, Appendix A) in a marshy area west of Route 22, south of Dover Plains (Ref. 2, Appendix A). The landfill received only municipal waste from one (Ref. 1, Appendix A) to six or eight years (Ref. 3, Appendix A). The six to eight years of landfilling seem to be a better estimate of operating time based on the estimated size of the landfill. No hazardous wastes are suspected to have been landfilled. Dutchess County Health Department (DCHD) site inspection reports (Ref. 4, Appendix A) note only 1967 and 1968 inspection dates. The reports note that the landfill had been poorly maintained and leachate emanated from the site. Tar paper and shingles disposal were also documented (Ref. 4, Appendix A). A leachate sample was collected in 1979 (see Section 4.4 of this report). NUS Corporation inspected the site for EPA on 5 October 1983 (Ref. 3, Appendix A). The inspection noted topsoil covering the site as well as trees growing in the fill. A steep slope from the road to the landfill has been filled with additional cover material to the level of the road.

4.2 SITE AREA

4.2.1 Topography and Drainage

The topography in the Dover region exhibits features that are common throughout Harlem Valley. This area of Dutchess County is characterized by numerous irregularly shaped hills and lowlands. Upland regions are commonly dissected by streams, while wetlands are frequent in low-lying areas. Dominating surface flow in this region are the Swamp River and Tenmile River.

The Route 22 Westside site is located within the Tenmile Creek Valley approximately 2 miles south of Dover Plains. The site, which occupied an estimated 1 acre, is situated along Route 22 in a flat, well-vegetated, low-lying marshy area. The terrain surrounding this area is marked by increasing relief, becoming steep and hilly. Several wetland regions exist to the north and south. An unnamed stream flows from West Mountain northward along the site's western perimeter and drains into the Tenmile Creek.

This area of Dutchess County is part of the Housatonic River drainage basin. The immediate area has drainage provided chiefly by the Tenmile River and minor flows that drain into it. The landfill is located approximately 3000 ft from the Tenmile River. Drainage is provided by the previously mentioned unnamed stream flowing into the Tenmile. Any contaminants removed from the landfill via runoff and leaching may be transported in the stream to the Tenmile River.

4.2.2 Environmental Setting

The site is located approximately 1.75 miles south of the Village of Dover Plains, New York, along the west side of Route 22. The wooded, rural area is sparsely populated. The nearest residence is

approximately 1800 ft southeast of the site. West Mountain trends north-south approximately 1000 ft west of the site. Penn-Central railroad tracks lie 300 ft to the west. The land is used by a fish and game club and for hunting.

A New York State-regulated wetland lies 2300 ft south-southwest of the site (Ref. 5, Appendix A). An unnamed brook originates on West Mountain, flows eastward to the site, turns north, and flows into the Tenmile River 1 mile to the northeast. The unnamed brook is a New York State Class C waterway (Ref. 6, Appendix A). It is designated for fishing, fish propagation, and primary and secondary contact recreation.

4.3 SITE HYDROGEOLOGY

4.3.1 Soils

The predominant soil present on the Route 22 Westside site is Kendaia silt loam with a 0-3% slope (Ref. 7, Appendix A). This soil typically occurs in upland areas on very gentle slopes, or nearby level areas, and at the heads of streams. The till on which the soils develop is composed primarily of limestone, intermixed with some slate, sandstones, schist, and gneiss. This soil occurs at varying depths. Internal drainage and surface runoff are slow as erodibility rates are low.

4.3.2 Geology

Overlying the Stockbridge Limestone (Ref. 8, Appendix A) are unconsolidated deposits derived from glaciers and glacial meltwater. These deposits consist of both stratified glacial till (derived from glaciers and composed of a mixture of clay, sand, and gravel) and (chiefly) stratified glacial outwash (derived from glacial meltwater and composed of sand and gravel). The stratified de-

posits generally range in thickness from a few feet to as much as 200 ft.

Beneath the unconsolidated deposits, the first bedrock lithology encountered is the Stockbridge Limestone. This unit is described as a sequence of white to gray limestone and dolomite, some metamorphosed to marble. The thickness of the Stockbridge Limestone is approximately 1000 ft, with local variations due to folding and faulting. The depth to bedrock is approximately 100 ft below the ground surface in this region. The Stockbridge Limestone is bounded by thrust faults to the east and west. These faults trend north-northeast, roughly parallel to the contours of the Tenmile River as it flows through the Dover Plains area. To the east, the Cheshire Quartzite (Poughquag Quartzite) is thrust westward over the Stockbridge Limestone.

Below the Stockbridge Limestone is another bedrock formation called the Cheshire Quartzite. This unit is described as strong, compact silicious rock composed almost entirely of quartz. It generally appears white but may occur as pink or buff due to impurities. The thickness of the Cheshire Quartzite varies from a few feet to about 600 feet.

4.3.3 Groundwater

Groundwater in the Dover Plains area occurs in both unconsolidated surficial deposits and bedrock (Ref. 8, Appendix A). Recharge for groundwater is provided primarily by snowfall and rain. The average annual precipitation is approximately 45 in. Much of it returns to the atmosphere by evaporation or is transpired by vegetation. Some of it runs off to streams. The remainder percolates into the ground. The average annual evaporation is approximately 30 in., which yields a net annual precipitation of approximately 15

in. The groundwater level fluctuates and ranges from 5 to 10 ft below surface elevation in the unconsolidated surficial deposits.

These deposits, consisting mainly of stratified sand and gravel, yield an average of 10-15 gpm. Large supplies adequate for municipal and industrial needs can be obtained from these stratified deposits (Ref. 8, Appendix A).

The Stockbridge Limestone is the most productive bedrock unit, with yields averaging 22 gpm and ranging widely from 0 to 220 gpm. The water is moderately hard and high in dissolved solids. This bedrock unit overlies the Cheshire Quartzite, which yields about 10 gpm. The use of Cheshire Quartzite as a source of groundwater is insignificant due to its lower yield and difficulty to drill through.

Prior to 1957 water for Dover Plains was obtained entirely from Seven Wells Brook. Since 1957 the water supply has been supplemented by a municipal water system from the Stockbridge Limestone. The Dover Water Company well is located within 2 miles north of the site and serves less than 1500 people from the Village of Dover Plains. A nonmunicipal community well serving the Powell Road Mobile Park is located 12,000 ft north-northeast of the site and serves about 115 people. The homes outside this area are served by private wells (Ref. 8, Appendix A).

4.4 PREVIOUS SAMPLING AND ANALYSES

There are no known groundwater analyses. Limited air analyses (Chapter 3 and Ref. 3, Appendix A) show no readings above background.

No hazardous waste is suspected to have been landfilled at the site. One leachate sample (exact location unknown) was collected

on 17 December 1979 (Ref. 9, Appendix A). Table 4-1 lists the analyses. Iron is a typical constituent of sanitary landfill leachate. Phenol could be generated from household waste, nearby discarded railroad ties, or shingles and tar paper. All three ideas are hypotheses to explain a single analytical value.

TABLE 4-1

LEACHATE ANALYSIS

Route 22 Westside NYSDEC I.D. No. 314029

<u>PARAMETER</u>	<u>CONCENTRATION^a</u>
<u>Physical</u>	
Chloride	12.5
pH	6.7
TOC	66
Specific conductance ^b	315
Oil/grease	<0.1
<u>Phenol</u>	3.8
<u>PCBs (Aroclors)</u>	c
1248	
1254	
1260	
<u>Metals</u>	
Cadmium	<0.01
Chromium (total)	<0.03
Chromium (+6)	<0.03
Iron	30.6
Lead	0.01
Mercury	0.001

Collected by the Dutchess County Health Department.

^aAll data in milligrams per liter (mg/l or ppm) unless otherwise noted.^bUnits are micromhos per centimeter (umhos/cm).^cMultiple interference, unable to quantify.

CHAPTER 5

PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

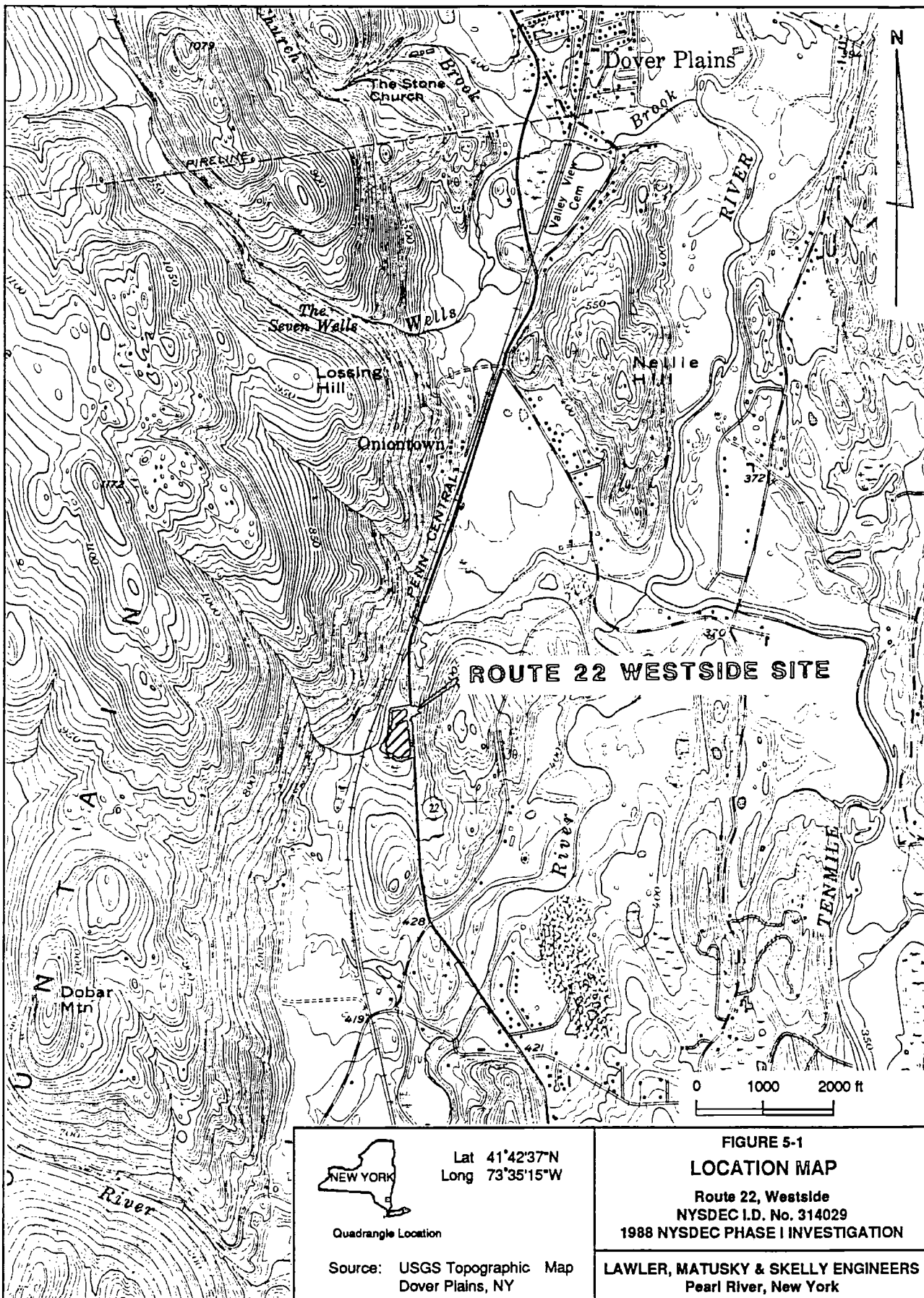
5.1 NARRATIVE SUMMARY

The Route 22 Westside site occupies approximately 1 acre in the Town of Dover, Dutchess County, New York. Municipal waste land-filling occurred for an unknown number of years. Whitney Aggregates purchased the inactive covered landfill circa 1979. An unknown quantity of municipal waste was disposed of by local residents. One leachate sample collected by the Dutchess County Health Department shows iron and phenol.

The site is located approximately 1.75 miles south of Dover Plains, on the west side of Route 22. The surrounding area is wooded and sparsely populated. A stream and wetland are adjacent to the south side of the site. The northern side is marshy and receives intermittent runoff from a small hill east of the site.

No cleanup or enforcement actions have been initiated.

5.2 LOCATION MAP



5.3 HRS WORKSHEETS

HRS COVER SHEET

Facility Name: Route 22 Westside

Location: Town of Dover, Dutchess County, New York

EPA Region: 2

Person(s) in charge of the facility: Whitney Aggregates, Inc.

c/o Mr. James Hosie

RD 2, Box 369F

Rhinebeck, NY 12572

Name of Reviewer: Mark Creager/Troy Goodman

Date: 12 April 1989

General description of the facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action; etc.)

Landfill accepted municipal waste. Site is in wooded, rural area 1.75 miles
south of Dover Plains immediately adjacent to Route 22. Wetland and stream are
contiguous to southern fill. A marsh and intermittent stream forms northern
border. Surface water is the route of concern. Groundwater and additional
surface water data should be collected to properly assess the site. No cleanup
or enforcement actions have been initiated or completed.

Scores: $S_M =$ NS

($S_{GW} =$ NS $S_{SW} = 4.00$ $S_A = 0.0$)

$S_{FE} =$ not scored

NS = not scored

$S_{DC} = 62.50$

GROUNDWATER ROUTE WORK SHEET

RATING FACTOR	ASSIGNED VALUE (circle one)	MULTIPLIER	SCORE	MAXIMUM SCORE	REFERENCE (section)	
1	OBSERVED RELEASE	0 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4 If observed release is given a score of 0, proceed to line 2						
2	ROUTE CHARACTERISTICS					3.2
	Depth of Aquifer of Concern	0 1 2 3	2	6	6	
	Net Precipitation	0 1 2 3	1	3	3	
	Permeability of the Unsaturated Zone	0 1 2 3	1	1	3	
	Physical State	0 1 2 3	1	1	3	
	Total Route Characteristics Score			11	15	
3	CONTAINMENT	0 1 2 3	1	3	3	3.3
4	WASTE CHARACTERISTICS					3.4
	Toxicity/Persistence	0 3 6 9 12 15 18	1	0	18	
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	0	8	
	Total Waste Characteristics Score			0	26	
5	TARGETS					3.5
	Ground Water Use	0 1 2 3	3	9	9	
	Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	30	40	
	Total Targets Score			39	49	
6	If line 1 is 45, multiply 1 X 4 X 5 If line 1 is 0, multiply 2 X 3 X 4 X 5			0	57,330	
7	Divide line 6 by 57,330 and multiply by 100 <div style="text-align: right;">$S_{ow} =$ not scored</div>					

SURFACE WATER ROUTE WORK SHEET

RATING FACTOR	ASSIGNED VALUE (circle one)	MULTIPLIER	SCORE	MAXIMUM SCORE	REFERENCE (section)
1	OBSERVED RELEASE	0 45	1	0	45
If observed release is given a value of 45, proceed to line 4 If observed release is given a value of 0, proceed to line 2					
2	ROUTE CHARACTERISTICS				4.2
	Facility Slope and Intervening Terrain	0 1 2 3	1	3	3
	1-yr 24-hr Rainfall	0 1 2 3	1	2	3
	Distance to Nearest Surface Water	0 1 2 3	2	6	6
	Physical State	0 1 2 3	1	0	3
Total Route Characteristics Score			11	15	
3	CONTAINMENT	0 1 2 3	1	3	3
4	WASTE CHARACTERISTICS				4.4
	Toxicity/Persistence	0 3 6 9 12 15 18	1	12	18
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	1	8
Total Waste Characteristics Score			13	26	
5	TARGETS				4.5
	Surface Water Use	0 1 2 3	3	6	9
	Distance to a Sensitive Environment	0 1 2 3	2	0	6
	Population Served/ Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40
Total Targets Score			6	55	
6	If line 1 is 45, multiply 1 X 4 X 5 If line 1 is 0, multiply 2 X 3 X 4 X 5			2574	64,350
7	Divide line 6 by 64,350 and multiply by 100			S_{SW} = 4.00	

AIR ROUTE WORK SHEET

RATING FACTOR	ASSIGNED VALUE (circle one)	MULTIPLIER	SCORE	MAXIMUM SCORE	REFERENCE (section)
1					
OBSERVED RELEASE	① 45	1	0	45	5.1
DATE AND LOCATION:					
SAMPLING PROTOCOL:					
If line 1 is 0, then $S_a = 0$. Enter on line 5 If line 1 is 45, then proceed to line 2					
2	WASTE CHARACTERISTICS				5.2
	Reactivity and Incompatibility	① 1 2 3	1	0	3
	Toxicity	0 1 2 ③	3	9	9
	Hazardous Waste Quantity	0 ① 2 3 4 5 6 7 8	1	1	8
	Total Waste Characteristics Score		10	20	
3	TARGETS				5.3
	Population Within 4-Mile Radius	0 9 12 ①⑤ 18 21 24 27 30	1	15	30
	Distance to Sensitive Environment	① 0 1 2 3	2	0	6
	Land Use	0 1 2 ③	1	3	3
	Total Targets Score		18	39	
4	Multiply 1 X 2 X 3			35,100	
5	Divide line 4 by 35,100 and multiply by 100		$S_A = 0$		

WORKSHEET FOR COMPUTING S_M

	S	S^2
GROUNDWATER ROUTE SCORE (S_{GW})	not scored	-
SURFACE WATER ROUTE SCORE (S_{SW})	4.00	16.00
AIR ROUTE SCORE (S_A)	0.0	0.0
$S_{GW}^2 + S_{SW}^2 + S_A^2$		not scored
$\sqrt{S_{GW}^2 + S_{SW}^2 + S_A^2}$		-
$\sqrt{S_{GW}^2 + S_{SW}^2 + S_A^2} / 1.73 (S_M)$		not scored

FIRE AND EXPLOSION WORK SHEET

RATING FACTOR	ASSIGNED VALUE (circle one)	MULTIPLIER	SCORE	MAXIMUM SCORE	REFERENCE (section)
1	CONTAINMENT	1 (3)	1	3	7.1
2	WASTE CHARACTERISTICS 7.2				
	Direct Evidence	(0) 3	1	0	3
	Ignitability	0 1 (2) 3	1	2	3
	Reactivity	(0) 1 2 3	1	0	3
	Incompatibility	(0) 1 2 3	1	0	3
	Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8
	Total Waste Characteristics Score		3	20	
3	TARGETS 7.3				
	Distance to Nearest Population	0 1 2 (3) 4 5	1	3	5
	Distance to Nearest Building	0 (1) 2 3	1	1	3
	Distance to Sensitive Environment	(0) 1 2 3	1	0	3
	Land Use	0 1 2 (3)	1	3	3
	Population Within 2-Mile Radius	0 1 2 (3) 4 5	1	3	5
	Buildings Within 2-Mile Radius	0 1 2 (3) 4 5	1	3	5
	Total Target Score		13	24	
4	Multiply 1 X 2 X 3			1,440	
5	Divide line 4 by 1,440 and multiply by 100 S_{FE} = not scored				

DIRECT CONTACT WORK SHEET

RATING FACTOR	ASSIGNED VALUE (circle one)	MULTIPLIER	SCORE	MAXIMUM SCORE	REFERENCE (section)
1 OBSERVED INCIDENT	0 45	1	0	45	8.1
<p>If line 1 is 45, proceed to line 4</p> <p>If line 1 is 0, proceed to line 2</p>					
2 ACCESSIBILITY	0 1 2 3	1	3	3	8.2
3 CONTAINMENT	0 15	1	15	15	8.3
4 WASTE CHARACTERISTICS TOXICITY	0 1 2 3	5	15	15	8.4
5 TARGETS					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	8	20	
Distance to a Critical Habitat	0 1 2 3	4	0	12	
Total Targets Score			8	32	
6	<p>If line 1 is 45, multiply 1 X 4 X 5</p> <p>If line 1 is 0, multiply 2 X 3 X 4 X 5</p>		5400	21,600	
7	Divide line 6 by 21,600 and multiply by 100		$S_{DC} = 25.00$		

5.4 HRS DOCUMENTATION RECORDS

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: Route 22, Westside

LOCATION: Town of Dover, Dutchess County, New York

DATE SCORED: 12 April 1989

PERSON SCORING: Mark Creager/Troy Goodman

PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.):

New York State Department of Environmental Conservation
- Region 3, New Paltz, New York

Dutchess County Health Department
- Poughkeepsie, New York

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

SFE - No direct field evidence exists. A state or local fire marshal has not certified the site a fire or explosion threat.

COMMENTS OR QUALIFICATIONS:

GROUNDWATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No data

Rationale for attributing the contaminants to the facility:

No data; no observed release
Assigned Value = 0

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

Hudson River Formation, Stockbridge Limestone, and overburden.
No known continuous confining layer between the three units.
Therefore, for HRS scoring purposes, these aquifers will be
considered one hydrogeologic unit.
Ref. 1

Depth(s) from the ground surface to the highest seasonal level of
the saturated zone [water table(s)] of the aquifer of concern:

16 ft.
Ref. 1

Depth from the ground surface to the lowest point of waste dis-
posal/storage:

Estimate 15 to 20 ft
Ref. 2

Depth from lowest point of waste disposal/storage to the highest seasonal level of the saturated zone of the aquifer of concern (subtract the above figures):

1 to 0 ft. In the 0 to 20 ft category
Assigned Value = 3

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

44 in.
Ref. 3

Mean annual lake or seasonal evaporation (list months for seasonal):

28 in.
Ref. 3

Net precipitation (subtract the above figures):

16 in. In the greater than 15 in. category
Assigned Value = 3

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Kendaia silty loam
Ref. 4

Permeability associated with soil type:

10^{-5} to 10^{-7} cm/sec
Assigned Value = 1

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Solid
Ref. 5
Assigned Value = 1

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Landfill with no liner, landfill surface encourages ponding, no leachate collection system

Method with highest score:

No liner or incompatible liner
Assigned Value = 3

* * *

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

No known contaminants in groundwater

Compound with highest score:

NA

Hazardous Waste Quantity

Basis of estimating and/or computing waste quantity:

No known reports of landfill accepting hazardous waste.
Assigned Value = 0

* * *

5 TARGETS

Groundwater Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Drinking water; no municipal water from alternate, unthreatened sources available
Refs. 1 and 5
Assigned Value = 3

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

1800 ft SE of the site
Ref. 7

Distance to above well or building:

1800 ft. In the less than 2000 ft category
Assigned Value = 4

Population Served by Groundwater Wells Within a 3-Mile Radius

Identified water supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

NAME	POPULATION SERVED	REF.
Dover Plains Water Company	1500	8
McCartha's Trailer Park	42	8
High Meadows Park, Inc.	196	8
May Lane Mobile Park	30	8
Powell Road Mobile Park	115	8
Private Homes (155 estimated)	<u>589</u>	9
Total	2472	

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

No irrigated land known

Total population served by groundwater within a 3-mile radius:

2472. In the 1001 to 3000 category

Assigned Value = 3

Matrix Value = 30

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

None

Rationale for attributing the contaminants to the facility:

One leachate sample analysis exists (Ref. 6). However, these data do not satisfy the HRS observed release requirements. Therefore, no observed release occurred.
Assigned Value = 0

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0 to 1%. In the less than 3% category
Ref. 2

Name/description of nearest downslope surface water:

Unnamed stream to the south and west

Average slope of terrain between facility and above-cited surface water body in percent:

The site is in surface water. Therefore:
Matrix Score and Assigned Value = 3

Is the facility located either totally or partially in surface water?

Yes
Ref. 2

Is the facility completely surrounded by areas of higher elevation?

No
Ref. 3

1-Year 24-Hour Rainfall in Inches

2.75 in. In the 2.1 to 3.0 in. category
Ref. 3
Assigned Value = 2

Distance to Nearest Downslope Surface Water

Adjacent to (and in) surface water and marsh. In the less than 1000 ft category.
Ref. 2
Assigned Value = 3

Physical State of Waste

Solid = 0
Ref. 5
Assigned Value = 0

* * *

3 CONTAINMENT

Method(s) of waste or leachate containment evaluated:

Landfill has adequate cover material = 0
Diversion system unsound = 3

Method with highest score:

Diversion system unsound = 3
Ref. 2
Assigned Value = 3

* * *

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Phenol
T/P Score = 12
Ref. 6

Compound with highest score:

Phenol
Assigned Value = 12

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

1-10 cubic yards

Basis of estimating and/or computing waste quantity:

No hazardous waste is alleged. However, for HRS scoring purposes, the lowest nonzero number is used.
Assigned Value = 1

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Fishing, recreation

Ref. 10

Assigned Value = 2

Is there tidal influence?

No

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Greater than 2 miles

Assigned Value = 0

Distance to 5-acre (minimum) freshwater wetland, if 1 mile or less:

0.44 miles SSW. In the 0.25 to 1 mile category

Ref. 11

Assigned Value = 1

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

The following New York State-listed plants or colonies are found within a 1-mile radius of the site:

NAME	TYPE	STATE LEGAL STATUS
<u>Chamaelirium luteum</u>	Plant	Rare
<u>Liparis lilifolia</u>	Plant	Rare
<u>Carex bicknellii</u>	Plant	Rare
Appalachian Calcareous Rocky Summit	Colony	
<u>Linum sulcatum</u>	Plant	Rare
<u>Bouteloua curtipendula</u>	Plant	Endangered
<u>Asclepias viridiflora</u>	Plant	Rare
<u>Draba reptans</u>	Plant	Rare
<u>Crotalus horridus</u>	Animal	Threatened

Ref. 12

An endangered plant is found within 0.5 miles of the site. A rare plant is found within 0.25 miles of the site. However, they do not have Federal endangered or threatened status.

Therefore:

Assigned Value = 0

Population Served by Surface Water

Location(s) of water supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

0

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

None suspected or known

Total population served:

0

Name/description of nearest of above water bodies:

Unnamed tributary of Tenmile River. Tributary flows west of site.

Distance to above-cited intakes, measured in stream miles:

No intakes

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

None

Date and location of detection of contaminants:

NA

Methods used to detect the contaminants:

HNU used during 1983 and 1988 site inspections
Assigned Value = 0
SA = 0

Rationale for attributing the contaminants to the site:

NA

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Phenol - 0
Refs. 6 and 13
Assigned Value = 0

Most incompatible pair of compounds:

None suspected
Assigned Value = 0

Toxicity

Most toxic compound:

Phenol - 3
Ref. 13
Assigned Value = 3

Hazardous Waste Quantity

Total quantity of hazardous waste:

1-10 cubic yards

Basis of estimating and/or computing waste quantity:

No known reports of landfill accepting hazardous waste. However, for HRS scoring purposes, the lowest nonzero number will be used.

Assigned Value = 1

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to 1/2 mi	0 to 1/4 mi
Population = 4590	Population = 270	Population = 15	Population = 0
Value = 15	Value = 15	Value = 15	Value = 0

Ref. 9

Assigned Value = 15

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Greater than 2 miles
Assigned Value = 0

Distance to 5-acre (minimum) freshwater wetland, if 1 mile or less:

0.44 miles SSW. In the 0.25 to 1 mile category
Ref. 11
Assigned Value = 1

Distance to critical habitat of an endangered species, if 1 mile or less:

The following New York State-listed plants or colonies are found within a 1-mile radius of the site:

NAME	TYPE	STATE LEGAL STATUS
<u>Chamaelirium luteum</u>	Plant	Rare
<u>Liparis lilifolia</u>	Plant	Rare
<u>Carex bicknellii</u>	Plant	Rare
Appalachian Calcareous Rocky Summit	Colony	
<u>Linum sulcatum</u>	Plant	Rare
<u>Bouteloua curtipendula</u>	Plant	Endangered
<u>Asclepias viridiflora</u>	Plant	Rare
<u>Draba reptans</u>	Plant	Rare
<u>Crotalus horridus</u>	Animal	Threatened

Ref. 12

An endangered plant is found within 0.5 miles of the site. A rare plant is found within 0.25 miles of the site. However, they do not have Federal endangered or threatened status.

Therefore:

Assigned Value = 0

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Greater than 1 mile
Ref. 2
Assigned Value = 0

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Greater than 2 miles
Refs. 2 and 7
Assigned Value = 0

Distance to residential area, if 2 miles or less:

0.34 miles. In the 0.25 to 1 mile category
Ref. 7
Assigned Value = 2

Distance to agricultural land in production within past 5 years, if 1 mile or less:

0.75 miles. In the 0.5 to 1 mile category
Refs. 2 and 7
Assigned Value = 1

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

0.25 miles. In the less than 0.5 mile category
Ref. 14
Assigned Value = 3

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within view of the site?

No
Review of National Register (New York Section)

FIRE AND EXPLOSION

1 CONTAINMENT

Hazardous substances present:

A state or local fire marshal has not certified that the site presents a significant fire or explosion threat to the public or to sensitive environments, and no data exist to demonstrate a threat. Therefore, this section not scored.

Type of containment, if applicable:

No containment
Ref. 2
Assigned Value = 3

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

No evidence
Ref. 2
Assigned Value = 0

Ignitability

Compound used:

Phenol = 2
Ref. 13
Assigned Value = 2

Reactivity

Most reactive compound:

Phenol = 0
Ref. 13
Assigned Value = 2

Incompatibility

Most incompatible pair of compounds:

None known
Assigned Value = 0

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

1 to 10 cubic yards

Basis of estimating and/or computing waste quantity:

No known reports of the landfill accepting hazardous waste.
However, for HRS scoring purposes, the lowest nonzero number
will be used.
Assigned Value = 1

* * *

3 TARGETS

Distance to Nearest Population

0.34 miles. In the 201 ft to 0.5 mile category
Ref. 7
Assigned Value = 3

Distance to Nearest Building

0.34 miles. In the 201 ft to 0.5 mile category
Ref. 7
Assigned Value = 1

Distance to Sensitive Environment

Distance to wetlands:

Greater than 100 ft
Ref. 11
Assigned Value = 0

Distance to critical habitat:

The following New York State-listed plants or colonies are found within a 1-mile radius of the site:

NAME	TYPE	STATE LEGAL STATUS
<u>Chamaelirium luteum</u>	Plant	Rare
<u>Liparis lilifolia</u>	Plant	Rare
<u>Carex bicknellii</u>	Plant	Rare
Appalachian calcareous Rocky Summit	Colony	
<u>Linum sulcatum</u>	Plant	Rare
<u>Bouteloua curtipendula</u>	Plant	Endangered
<u>Asclepias viridiflora</u>	Plant	Rare
<u>Draba reptans</u>	Plant	Rare
<u>Crotalus horridus</u>	Animal	Threatened

Ref. 12

An endangered plant is found between 1000 ft and 0.5 miles of the site. A rare plant is found within 500 ft of the site. However, they do not have Federal endangered or threatened status.

Therefore:

Assigned Value = 0

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Greater than 1 mile.

Ref. 2

Assigned Value = 0

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Greater than 2 miles

Refs. 2 and 7

Assigned Value = 0

Distance to residential area, if 2 miles or less:

0.34 miles. In the 0.25 to 1 mile category

Ref. 7

Assigned Value = 2

Distance to agricultural land in production within past 5 years,
if 1 mile or less:

0.75 miles. In the 0.5 to 1 mile category

Refs. 2 and 7

Assigned Value = 1

Distance to prime agricultural land in production within past 5
years, if 2 miles or less:

0.25 miles. In the less than 0.5 mile category

Ref. 14

Assigned Value = 3

Is a historic or landmark site (National Register of Historic
Places and National Natural Landmarks) within view of the site?

No

Review of National Register (New York Section)

Population Within 2-Mile Radius

1132. In the 1001 to 3000 category

Ref. 9

Assigned Value = 3

Buildings Within 2-Mile Radius

298. In the 261 to 790 category

Ref. 9

Assigned Value = 3

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No direct contact incident reported
Assigned Value = 0

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

Barriers do not completely surround the facility.
Ref. 2
Assigned Value = 3

* * *

3 CONTAINMENT

Type of containment, if applicable:

Leachate available to direct contact
Refs. 2 and 5
Assigned Value = 15

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Phenol

Compound with highest score:

Phenol = 3
Ref. 13
Assigned Value = 3

* * *

5 TARGETS

Population Within 1-Mile Radius

270. In 101 to 1000 category

Ref. 9

Assigned Value = 2

Distance to Critical Habitat (of Endangered Species)

The following New York State-listed plants or colonies are found within a 1-mile radius of the site:

NAME	TYPE	STATE LEGAL STATUS
<u>Chamaelirium luteum</u>	Plant	Rare
<u>Liparis lilifolia</u>	Plant	Rare
<u>Carex bicknellii</u>	Plant	Rare
<u>Appalachin calcareous</u> Rocky Summit	Colony	
<u>Linum sulcatum</u>	Plant	Rare
<u>Bouteloua curtipendula</u>	Plant	Endangered
<u>Asclepias viridiflora</u>	Plant	Rare
<u>Draba reptans</u>	Plant	Rare
<u>Crotalus horridus</u>	Animal	Threatened

Ref. 12

An endangered plant is found within 0.5 miles of the site. A rare plant is found within 0.25 miles of the site. However they do not have Federal endangered or threatened status.

Therefore:

Assigned Value = 0

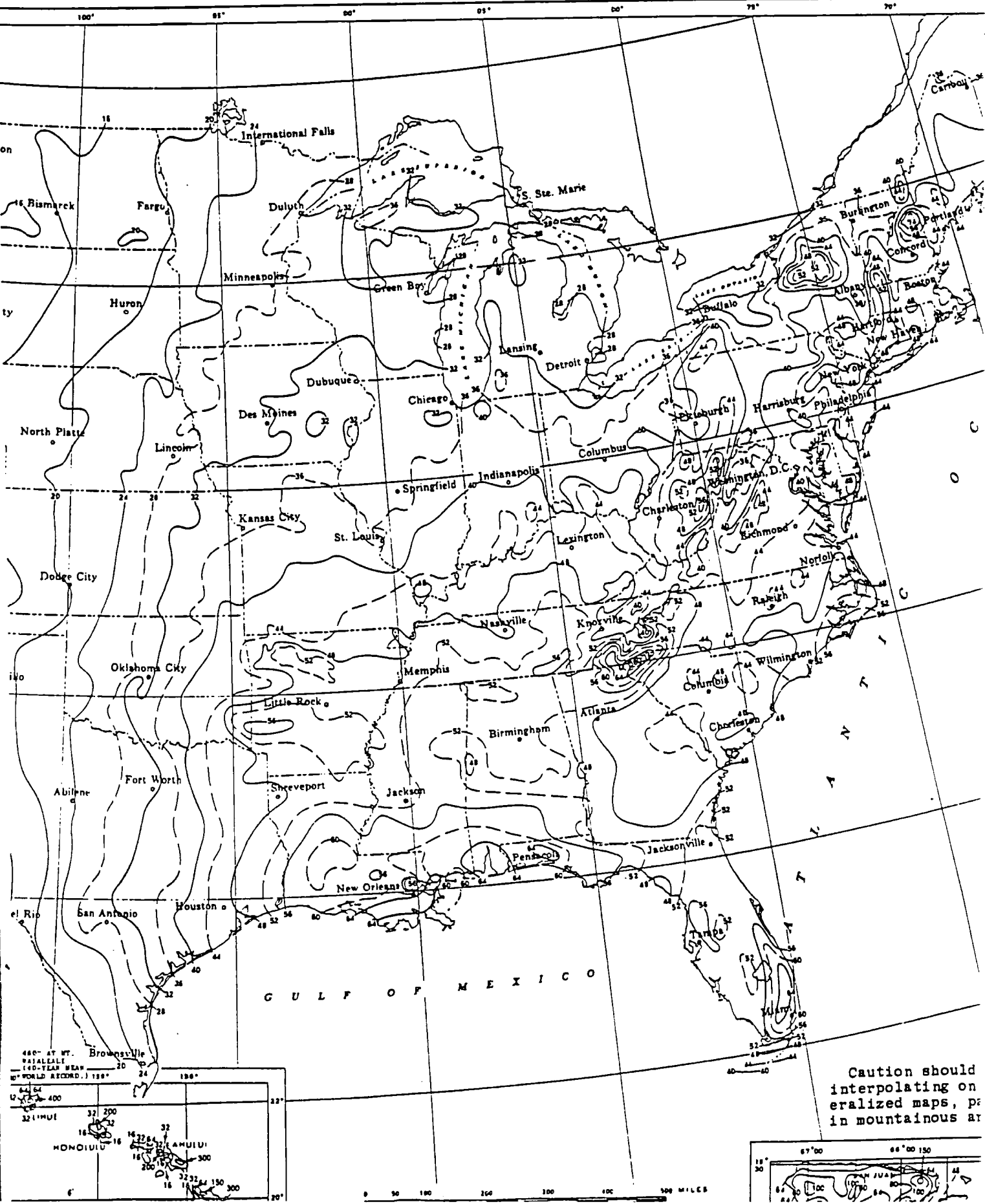
5.5 HRS REFERENCES

HRS REFERENCES

- [1] Ground-Water Resources of Dutchess County, New York (Ref. 8, Appendix A, this report).
- [2] LMS 15 December 1988 site inspection (Chapter 3, this report).
- [3] Rainfall and evaporation maps.
- [4] Soil Survey of Dutchess County, New York (Ref. 7, Appendix A, this report).
- [5] NUS Site Inspection Report (Ref. 3, Appendix A, this report).
- [6] Analytical data (Ref. 9, Appendix A, this report).
- [7] USGS Topographic Map (Figure 5-1, this report).
- [8] New York State Department of Health. 1982. New York State Atlas of Community Water System Sources, pp. 66 and 67
- [9] House count.
- [10] 6 NYCRR (Ref. 6, Appendix A, this report).
- [11] New York State Wetlands Map (Ref. 5, Appendix A, this report).
- [12] Review of NYSDEC Significant Habitat Unit files.
- [13] HRS Users Manual.
- [14] Letter from the Soil Conservation Service regarding prime soils.

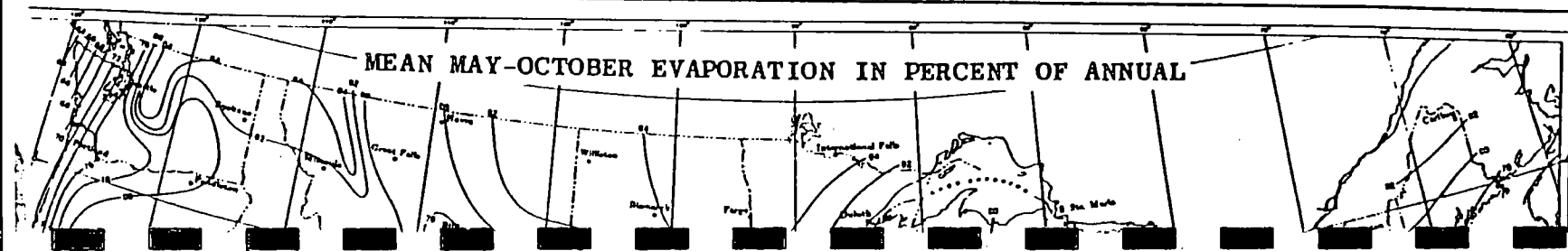
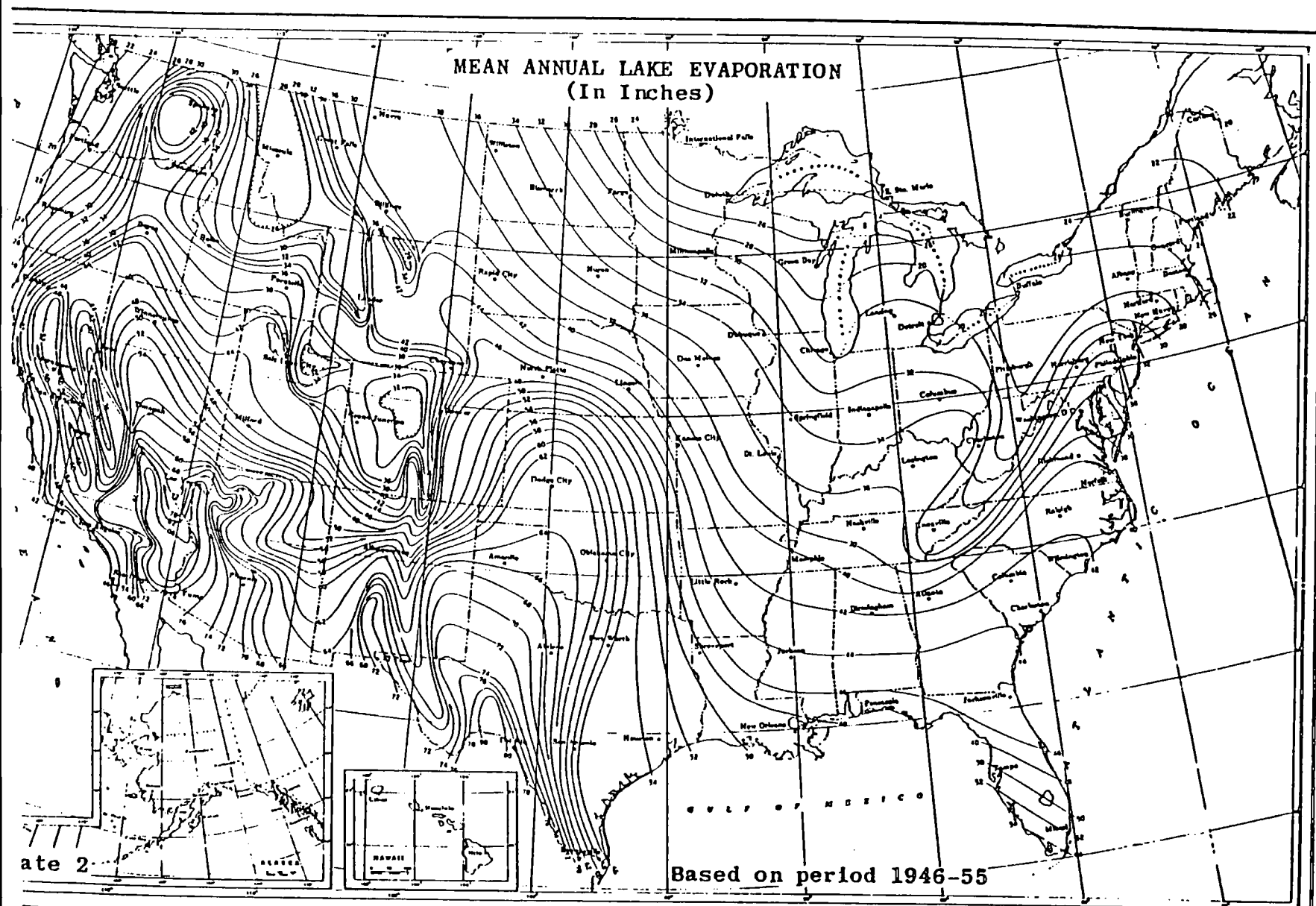
REFERENCE 3

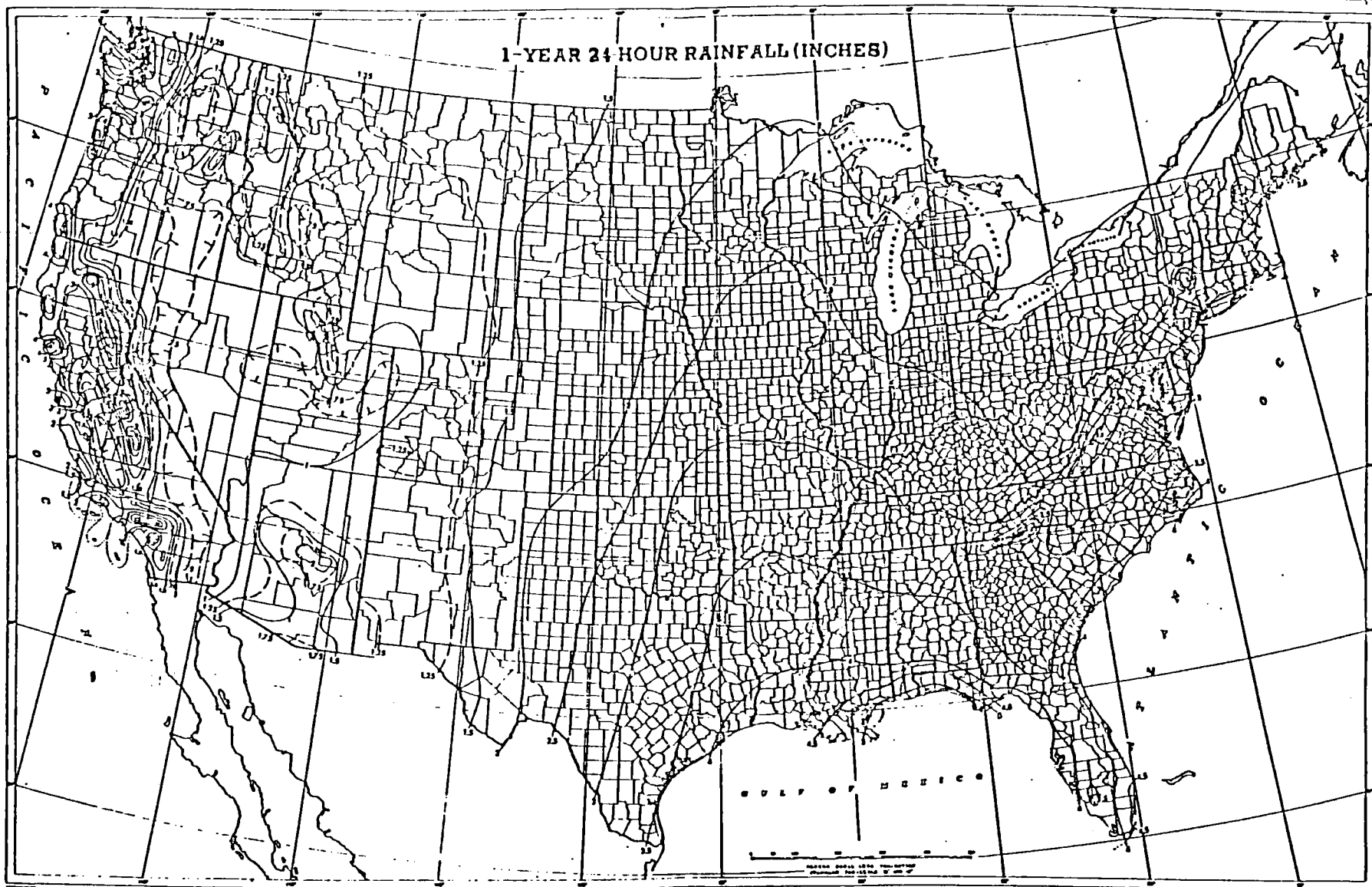
ANNUAL TOTAL PRECIPITATION (Inches)



Caution should
interpolating on
eralized maps, p
in mountainous ar

MEAN ANNUAL LAKE EVAPORATION





REFERENCE 8

PROPERTY OF LAWLER, MATUSKY & SKELLY LIBRARY



New York State Atlas of
Community Water System Sources
1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

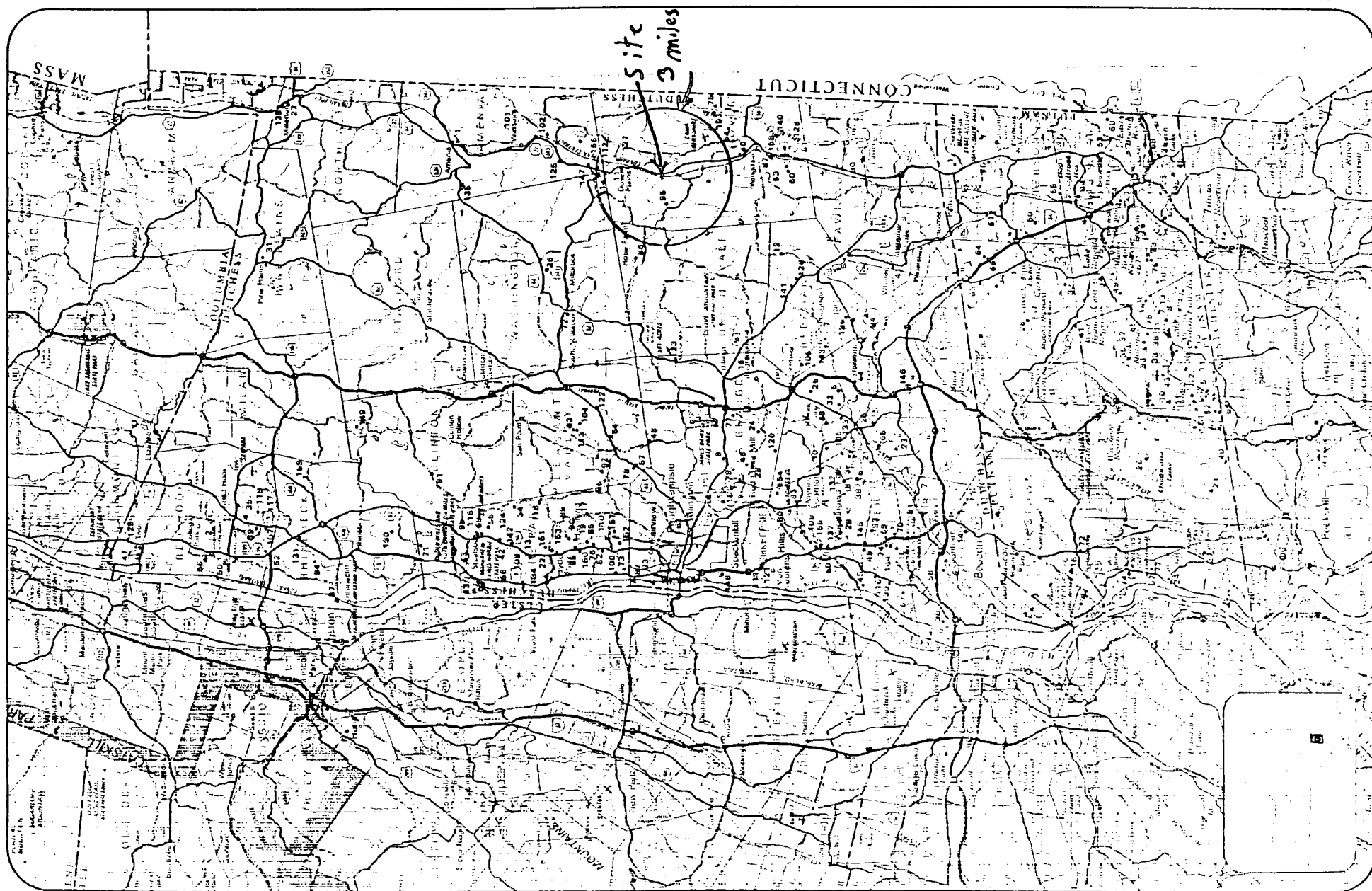
REFERENCE

REF
TD
224
JN717
1982

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

DUTCHESS and PUTNAM COUNTIES



ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		

[illegible]

51	Angelo Trullier Park	80	Wetlands
52	Arroyo Santa Agnes	75	Wetlands
53	Barro Colorado Forest	75	Wetlands
54	Barro Colorado Forest	75	Wetlands
55	Barro Colorado Forest	75	Wetlands
56	Barro Colorado Forest	75	Wetlands
57	Barro Colorado Forest	75	Wetlands
58	Barro Colorado Forest	75	Wetlands
59	Barro Colorado Forest	75	Wetlands
60	Barro Colorado Forest	75	Wetlands
61	Barro Colorado Forest	75	Wetlands
62	Barro Colorado Forest	75	Wetlands
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66	Barro Colorado Forest	75	Wetlands
67	Barro Colorado Forest	75	Wetlands
68	Barro Colorado Forest	75	Wetlands
69	Barro Colorado Forest	75	Wetlands
70	Barro Colorado Forest	75	Wetlands
71	Barro Colorado Forest	75	Wetlands
72	Barro Colorado Forest	75	Wetlands
73	Barro Colorado Forest	75	Wetlands
74	Barro Colorado Forest	75	Wetlands
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90	Barro Colorado Forest	75	Wetlands
91	Barro Colorado Forest	75	Wetlands
92	Barro Colorado Forest	75	Wetlands
93	Barro Colorado Forest	75	Wetlands
94	Barro Colorado Forest	75	Wetlands
95	Barro Colorado Forest	75	Wetlands
96	Barro Colorado Forest	75	Wetlands
97	Barro Colorado Forest	75	Wetlands
98	Barro Colorado Forest	75	Wetlands
99	Barro Colorado Forest	75	Wetlands
100	Barro Colorado Forest	75	Wetlands

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		

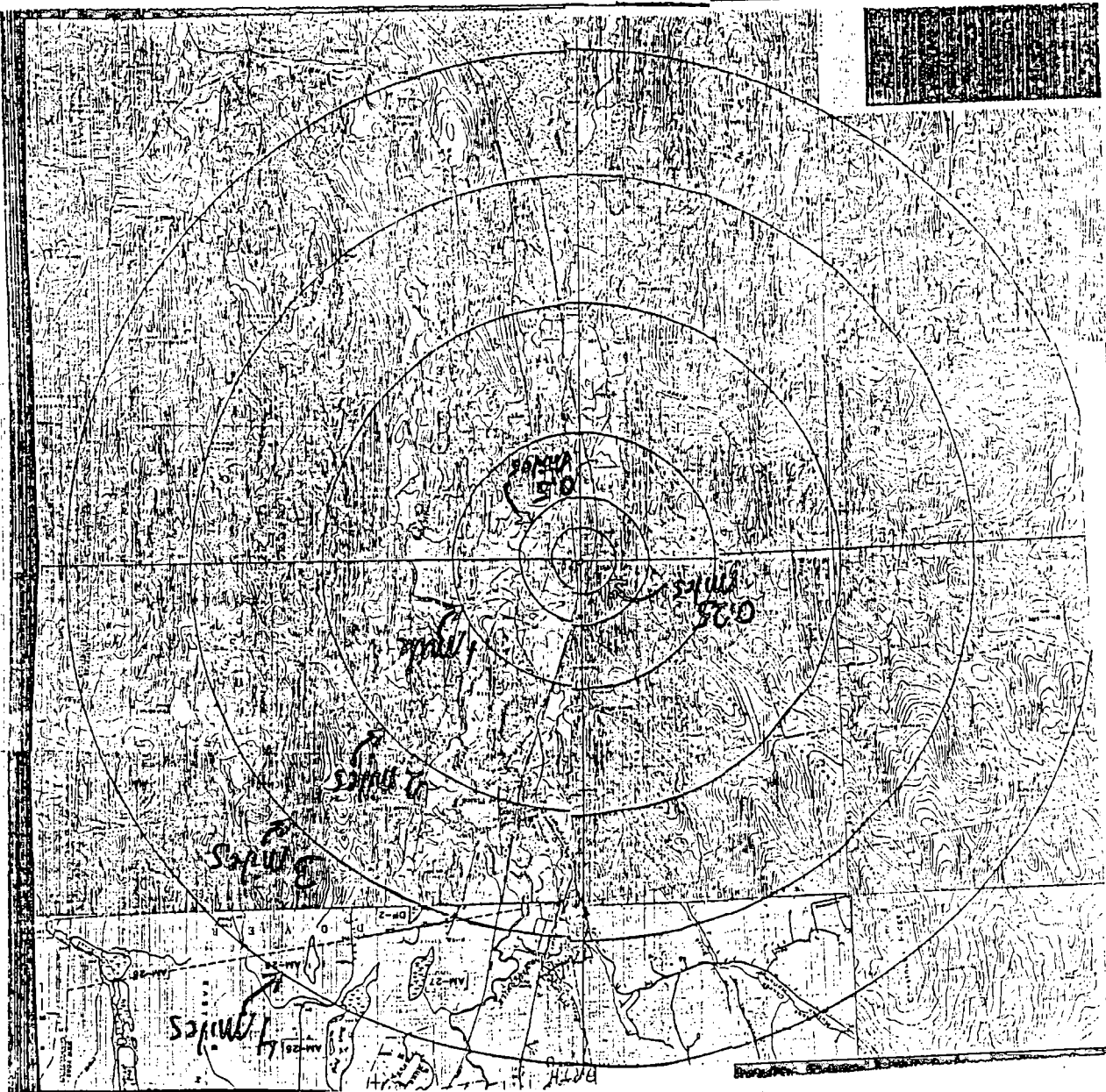
1	Algonquin Village	100	well
2	Victoria Estates	130	well
3	Ardenby City (Low Discharge City)	200	Partial Reservoir
4	Blackberry Hill	400	well
5	Bryncliffe Water Company	160	well
6	Browder Village	1100	well (with Reservoir)
7	Browder Village	1200	Two Branches (with Reservoir)
8	Capri Estates	140	well
9	Carmel Water District #1	100	Lake Glenwood
10	Carmel Water District #1	1600	Lake George
11	Carmel Water District #1		
12	Carmel Water District #1	1600	well
13	Carmel Water District #1	180	well
14	Carmel Water District #1	124	well
15	Carmel Water District #1		
16	Chateau Ridge	68	well
17	Chateau Ridge	100	well
18	Chateau Ridge	100	Reservoir (with Reservoir)
19	Chateau Ridge	105	Lake George
20	Chateau Ridge Estates	200	well
21	Chateau Ridge Water Supply	20	well
22	Chateau Ridge Water Supply	255	well
23	Chateau Ridge	200	well
24	Chateau Ridge	200	well
25	Chateau Ridge	124	well
26	Chateau Ridge	100	well (with Reservoir)
27	Chateau Ridge	98	well
28	Chateau Ridge	98	well
29	Chateau Ridge	220	well
30	Chateau Ridge	220	well
31	Chateau Ridge	220	well
32	Chateau Ridge	56	well
33	Chateau Ridge	200	well
34	Chateau Ridge	160	well
35	Chateau Ridge	256	well
36	Chateau Ridge	256	well
37	Chateau Ridge	256	well (with Infiltration Gallery)
38	Chateau Ridge	256	well
39	Chateau Ridge	256	well
40	Chateau Ridge	256	well
41	Chateau Ridge	256	well
42	Chateau Ridge	256	well
43	Chateau Ridge	256	well
44	Chateau Ridge	256	well
45	Chateau Ridge	256	well
46	Chateau Ridge	256	well
47	Chateau Ridge	256	well
48	Chateau Ridge	256	well
49	Chateau Ridge	256	well
50	Chateau Ridge	256	well
51	Chateau Ridge	256	well
52	Chateau Ridge	256	well

51	Brumley Woods Condominiums	200	1974
52	Campton Farm Apartment Community	65	1974
53	Chapelwood Farm Park	90	1974
54	Cherry Hill Farm House	12	1974
55	Cherry Hill Farm House	12	1974
56	East Spring Senior Center	15	1974
57	Eden Apartments	38	1974
58	Edgewood Manor Apartments	400	1974
59	Edgewood Senior Park	84	1974
60	Holly Green Condominiums		
61	Home Apartments	22	1974
62	Home Apartments	56	1974
63	Home Apartments	155	1974
64	Home Apartments	74	1974
65	Home Apartments	40	1974
66	Home Apartments	41	1974
67	Home Apartments	41	1974
68	Home Apartments	41	1974
69	Home Apartments	41	1974
70	Home Apartments	41	1974
71	Home Apartments	41	1974
72	Home Apartments	41	1974
73	Home Apartments	41	1974
74	Home Apartments	41	1974
75	Home Apartments	41	1974
76	Home Apartments	41	1974
77	Home Apartments	41	1974
78	Home Apartments	41	1974
79	Home Apartments	41	1974
80	Home Apartments	41	1974
81	Home Apartments	41	1974
82	Home Apartments	41	1974
83	Home Apartments	41	1974
84	Home Apartments	41	1974
85	Home Apartments	41	1974
86	Home Apartments	41	1974
87	Home Apartments	41	1974
88	Home Apartments	41	1974
89	Home Apartments	41	1974
90	Home Apartments	41	1974
91	Home Apartments	41	1974
92	Home Apartments	41	1974
93	Home Apartments	41	1974
94	Home Apartments	41	1974
95	Home Apartments	41	1974
96	Home Apartments	41	1974
97	Home Apartments	41	1974
98	Home Apartments	41	1974
99	Home Apartments	41	1974
100	Home Apartments	41	1974

26. The applicant is a member of the Board of Directors of the American Association of University Professors, a national organization of college and university professors. The applicant has not been involved in any of the activities of the American Association of University Professors.



REFERENCE 9



HRS REFERENCE 9

HOUSE COUNT

RADIUS (miles)	QUADRANT				TOTAL
	NE	SE	SW	NW	
0-0.25	0	0	0	0	0
0.25-0.5	0	4	0	0	4
0.5-1	40	25	2	0	67
1-2	101	84	34	8	227
2-3	250	124	31	79	484
3-4	96	229	13	88	426

TOTAL RADIUS (miles)	QUADRANT				TOTAL	POPULATION TOTAL (x 3.8)
	NE	SE	SW	NW		
0-0.25	0	0	0	0	0	0
0-0.5	0	4	0	0	4	15
0-1	40	29	2	0	71	270
0-2	141	113	36	8	298	1,132
0-3	391	237	67	88	783	2,975
0-4	487	466	80	176	1209	4,590

House count taken from Dover Plains (1971), Amenia (1973),
Verbank (1960), and Milbrook (1960).

REFERENCE 13

United States
Environmental Protection
Agency

Office of
Solid Waste and
Emergency Response



DIRECTIVE NUMBER: 9355.0-3

TITLE: Uncontrolled Hazardous Waste Site Ranking System -
A Users Manual

APPROVAL DATE: 07/16/82

EFFECTIVE DATE: 07/16/82

ORIGINATING OFFICE: OERR/OPM

☒ FINAL

☐ DRAFT

STATUS:

REFERENCE (other documents):

OSWER OSWER OSWER
DIRECTIVE DIRECTIVE DI

7685

REFERENCE 14



United States
Department of
Agriculture

Soil
Conservation
Service

P.O. Box 37
Millbrook, NY 12545
914-677-3194

August 9, 1989

RECEIVED

AUG 14 1989

Edward A. Maikish, P.E.
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, NY 10965

LAWLER, MATUSKY & SKELLY
ENGINEERS

Dear Mr. Maikish:

Enclosed are the soils maps with prime soils marked for the nine landfill locations that you requested. The distance to prime soils for each site are:

Landfill Site

Distance to Prime Soils (miles)

Rt. 22 Westside

0.25

Please feel free to contact me if you need additional information.

Sincerely,

Robert F. Dibble

Robert F. Dibble
District Conservationist

RFD/bas

Enclosures

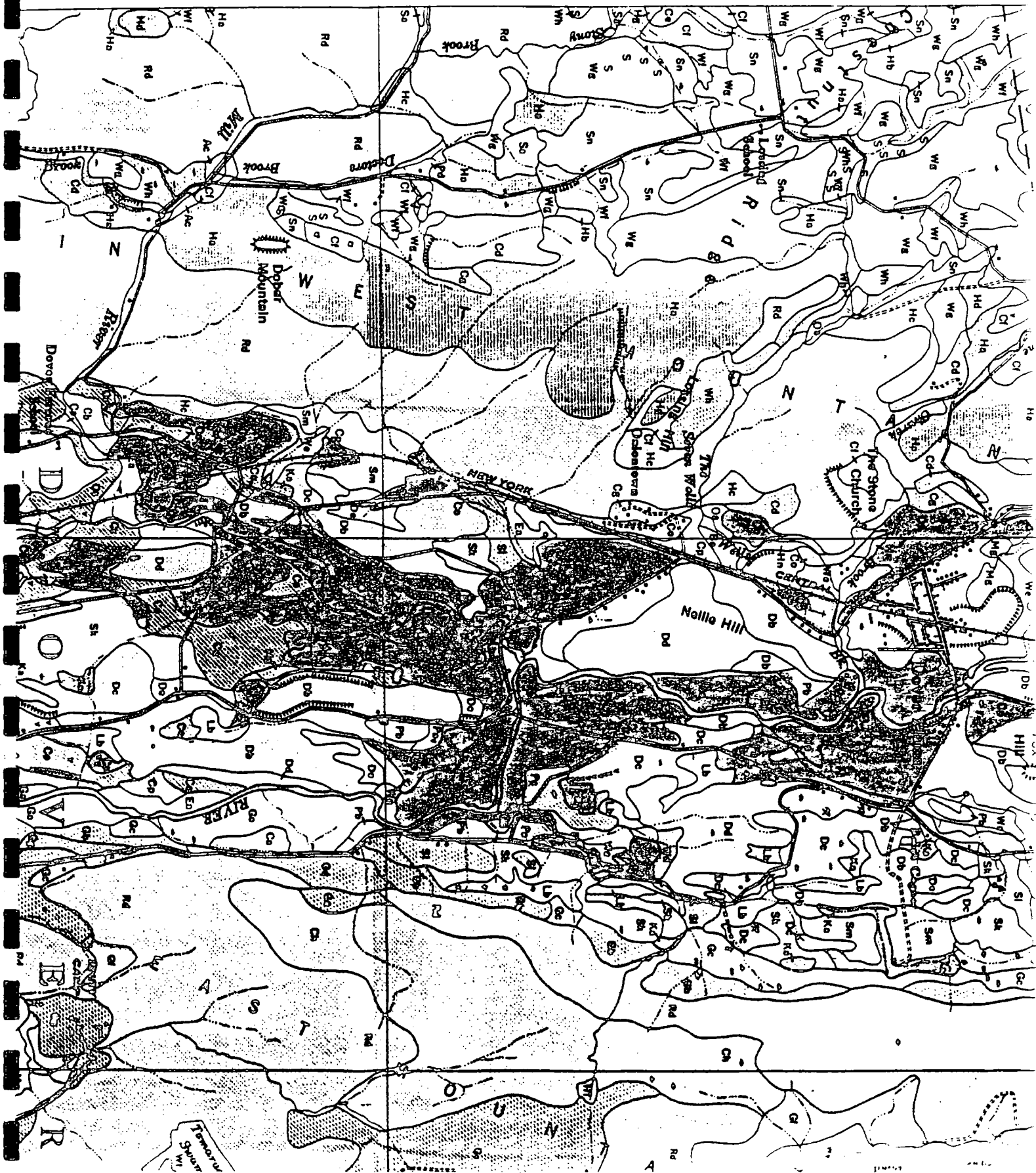


Route 22 Westside Site 0.25 miles

Sheet No. 13

42° 30'

630 000
FEET



5.6 EPA POTENTIAL HAZARDOUS WASTE SITE,
SITE INSPECTION REPORT (FORM 2070-13)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D980508139

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Route 22 Westside		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Route 22		
03 CITY Dover	04 STATE NY	05 ZIP CODE 12522	06 COUNTY Dutchess	07 COUNTY CODE 27
09 COORDINATES LATITUDE 41 42 37 N LONGITUDE 073 35 15 W		10 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A PRIVATE <input type="checkbox"/> B FEDERAL <input type="checkbox"/> C STATE <input type="checkbox"/> D COUNTY <input type="checkbox"/> E MUNICIPAL <input type="checkbox"/> F OTHER <input type="checkbox"/> G UNKNOWN		

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 12 15 88 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1967 1968 or 1974 UNKNOWN BEGINNING YEAR ENDING YEAR
---	--	--

04 AGENCY PERFORMING INSPECTION (Check all that apply):

☐ A EPA ☐ B EPA CONTRACTOR ☐ C MUNICIPAL ☐ D MUNICIPAL CONTRACTOR
☐ E STATE ☐ F STATE CONTRACTOR LMS Engineers ☐ G OTHER

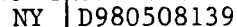
05 CHIEF INSPECTOR Mark Creager	06 TITLE Environmental Scientist	07 ORGANIZATION LMS Engineers	08 TELEPHONE NO 914 735-8300
09 OTHER INSPECTORS Maritza Montesinos-Gross	10 TITLE Environmental Engineer	11 ORGANIZATION LMS Engineers	12 TELEPHONE NO 914 735-8300
			()
			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED James Hosie	14 TITLE V.P. of	15 ADDRESS RD 2, Box 369F, Rhinebeck	16 TELEPHONE NO 914 229-7725
	Whitney	New York, 12572	()
	Aggregates,		()
	Inc.		()
			()
			()

17 ACCESS GAINED BY (Check one) <input type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 1610	19 WEATHER CONDITIONS Sunny, light breeze, 40°F
---	-------------------------------	--

IV. INFORMATION AVAILABLE FROM

01 CONTACT Michael Komoroske	02 OF (Agency/Organization) NYSDEC/DHWR/BHSC	03 TELEPHONE NO 518 457-0639
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Edward A. Maikish	05 AGENCY LMS Engineers	06 ORGANIZATION LMS Engineers
	07 TELEPHONE NO 914/735-8300	08 DATE 4 18 89 MONTH DAY YEAR



☐ I HIGHLY VOLATILE
☐ J EXPLOSIVE
☐ K REACTIVE
☐ L INCOMPATIBLE
☐ M NOT APPLICABLE



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D980508139

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
Groundwater may be affected if leachate infiltrates directly below water table.

01 ☐ B SURFACE WATER CONTAMINATION 02 ☒ OBSERVED (DATE 12/79) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
One leachate sample detects iron and phenol.

01 ☐ C CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
No history.

01 ☐ D FIRE EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
No history.

01 ☐ E DIRECT CONTACT 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
Direct contact from surface water leachate, by hunters from local fish and game club.

01 ☐ F CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
(Acres)
Leachate may contaminate soil immediately adjacent to fill.

01 ☐ G DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
No wells within 1800 ft. No data on groundwater quality.

01 ☐ H WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
No history.

01 ☐ I POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
No history. However, the property is used for hunting by a local fish and game club.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D980508139

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No history. None observed.

01 ☐ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names of species)

Possible. Past site reports note leachate in surface water.

01 ☐ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown.

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES 02 ☐ OBSERVED (DATE 12/79) ☐ POTENTIAL ☐ ALLEGED
(Spills, Rupture, Standing Liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

Leachate entering surface water.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No history.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No history.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

I. TOTAL POPULATION POTENTIALLY AFFECTED: unknown.

V. COMMENTS

SOURCES OF INFORMATION (List specific references e.g. State files, samples analyzed, reports)

DCHD
LMS Site Inspection, 12/15/88.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION
D1 STATE NY D2 SITE NUMBER D980508139

II. PERMIT INFORMATION

D1 TYPE OF PERMIT ISSUED (Check all that apply)	D2 PERMIT NUMBER	D3 DATE ISSUED	D4 EXPIRATION DATE	D5 COMMENTS
<input type="checkbox"/> A NPDES				
<input type="checkbox"/> B UIC				
<input type="checkbox"/> C AIR				
<input type="checkbox"/> D RCRA				
<input type="checkbox"/> E RCRA INTERIM STATUS				
<input type="checkbox"/> F SPCC PLAN				
<input type="checkbox"/> G STATE (Specify)				
<input type="checkbox"/> H LOCAL (Specify)				
<input type="checkbox"/> I OTHER (Specify)				
<input type="checkbox"/> J NONE				

III. SITE DESCRIPTION

D1 STORAGE/ DISPOSAL (Check all that apply)	D2 AMOUNT	D3 UNIT OF MEASURE	D4 TREATMENT (Check all that apply)	D5 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCINERATION	<input type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	a
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	D6 AREA OF SITE
<input type="checkbox"/> F. LANDFILL	unknown		<input type="checkbox"/> F. SOLVENT RECOVERY	1
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	(Acres)
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	
<input type="checkbox"/> I. OTHER (Specify)			some open burning	

D7 COMMENTS

a
One abandoned small guard shack.

IV. CONTAINMENT

D1 CONTAINMENT OF WASTES (Check one)
☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

D2 DESCRIPTION OF DRUMS, DUKING, LINERS, BARRIERS, ETC.

No known liner.

V. ACCESSIBILITY

D1 WASTE EASILY ACCESSIBLE ☐ YES ☐ NO
D2 COMMENTS

Waste covered.

VI. SOURCES OF INFORMATION (Give specific references e.g. state files, sample analysis reports.)

DCHD
LMS Site Inspection, 12/15/88



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

D1 STATE D2 SITE NUMBER
NY D980508139

II. DRINKING WATER SUPPLY

D1 TYPE OF DRINKING SUPPLY (Check all applicable)	D2 STATUS	D3 DISTANCE TO SITE															
<table><tr><td>SURFACE</td><td>WELL</td></tr><tr><td>COMMUNITY A <input type="checkbox"/></td><td>B <input type="checkbox"/></td></tr><tr><td>NON-COMMUNITY C <input type="checkbox"/></td><td>D <input type="checkbox"/></td></tr></table>	SURFACE	WELL	COMMUNITY A <input type="checkbox"/>	B <input type="checkbox"/>	NON-COMMUNITY C <input type="checkbox"/>	D <input type="checkbox"/>	<table><tr><td>ENDANGERED</td><td>AFFECTED</td><td>MONITORED</td></tr><tr><td>A <input type="checkbox"/></td><td>B <input type="checkbox"/></td><td>C <input type="checkbox"/></td></tr><tr><td>D <input type="checkbox"/></td><td>E <input type="checkbox"/></td><td>F <input type="checkbox"/></td></tr></table>	ENDANGERED	AFFECTED	MONITORED	A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	A. 2.0 (mi) B. 0.34 (mi)
SURFACE	WELL																
COMMUNITY A <input type="checkbox"/>	B <input type="checkbox"/>																
NON-COMMUNITY C <input type="checkbox"/>	D <input type="checkbox"/>																
ENDANGERED	AFFECTED	MONITORED															
A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>															
D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>															

III. GROUNDWATER

D1 GROUNDWATER USE IN VICINITY (Check one)			
<input type="checkbox"/> A ONLY SOURCE FOR DRINKING <input type="checkbox"/> B DRINKING (Other sources available) COMMERCIAL INDUSTRIAL IRRIGATION (No other water sources available) <input type="checkbox"/> C COMMERCIAL INDUSTRIAL IRRIGATION (Limited other sources available) <input type="checkbox"/> D NOT USED, UNUSEABLE			
D2 POPULATION SERVED BY GROUND WATER 2472 (estimated)		D3 DISTANCE TO NEAREST DRINKING WATER WELL 0.34 (mi)	
D4 DEPTH TO GROUND WATER 16 (ft)	D5 DIRECTION OF GROUNDWATER FLOW unknown	D6 DEPTH TO AQUIFER OF CONCERN 16 (ft)	D7 POTENTIAL YIELD OF AQUIFER (gpd)
D8 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input type="checkbox"/> NO			

D9 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

Town of Dover is supplied by municipal wells. Surrounding rural area supplied by private wells.

D10 RECHARGE AREA <input type="checkbox"/> YES <input type="checkbox"/> NO	COMMENTS	D11 DISCHARGE AREA <input type="checkbox"/> YES <input type="checkbox"/> NO	COMMENTS
---	----------	--	----------

IV. SURFACE WATER

D1 SURFACE WATER USE (Check one)			
<input type="checkbox"/> A. RESERVOIR, RECREATION, DRINKING WATER SOURCE <input type="checkbox"/> B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES <input type="checkbox"/> C. COMMERCIAL, INDUSTRIAL <input type="checkbox"/> D. NOT CURRENTLY USED			
D2 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER			
NAME	AFFECTED	DISTANCE TO SITE	
Unnamed creek west of site	<input type="checkbox"/>	0.04 (mi)	
Tenmile River	<input type="checkbox"/>	1.5 (mi)	
	<input type="checkbox"/>		

V. DEMOGRAPHIC AND PROPERTY INFORMATION

D1 TOTAL POPULATION WITHIN			D2 DISTANCE TO NEAREST POPULATION
ONE (1) MILE OF SITE A - 270 NO OF PERSONS	TWO (2) MILES OF SITE B - 1132 NO OF PERSONS	THREE (3) MILES OF SITE C - 2975 NO OF PERSONS	0.34 (mi)
D3 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 298			D4 DISTANCE TO NEAREST OFF-SITE BUILDING 0.34 (mi)

D5 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

Sparsely populated area. Village of Dover Plains (estimated 1500 people) approximately 1.75 miles north of the site.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

D1 STATE NY D2 SITE NUMBER D980508139

VI. ENVIRONMENTAL INFORMATION

D1 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A $10^{-6} - 10^{-8}$ cm/sec ☐ B $10^{-4} - 10^{-6}$ cm/sec ☐ C $10^{-2} - 10^{-4}$ cm/sec ☐ D GREATER THAN 10^{-2} cm/sec

D2 PERMEABILITY OF BEDROCK (Check one)

☐ A IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D VERY PERMEABLE (Greater than 10^{-2} cm/sec)

D3 DEPTH TO BEDROCK

_____ (ft)

D4 DEPTH OF CONTAMINATED SOIL ZONE

_____ (ft)

D5 SOIL pH

D6 NET PRECIPITATION

16 (in)

D7 ONE YEAR 24 HOUR RAINFALL

2.75 (in)

D8 SLOPE

SITE SLOPE

0 %

DIRECTION OF SITE SLOPE

-

TERRAIN AVERAGE SLOPE

2 %

D9 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (See Appendix)

ESTUARINE

A 3 (mi)

OTHER

B 0.44 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

<0.25 (mi)

ENDANGERED SPECIES chamaelirium luteum^a

13 LAND USE IN VICINITY

DISTANCE TO

COMMERCIAL/INDUSTRIAL

A 1.70 (mi)

RESIDENTIAL AREAS, NATIONAL STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

B 0.34 (mi)

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

C 0.25 (mi) D 0.75 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is immediately west of Route 22. Penn Central railroad trends north-south approximately 300 ft west. North Mountain lies 500 ft west. A smaller unnamed hill is east of the site across Route 22.

^aNew York State rare plant

VII. SOURCES OF INFORMATION (See Appendix for references, e.g., State files, agency studies, reports)

USGS Topographic Map, Dover Plains, NY-CT
LMS site visit
Soil Conservation Service
NYSDEC Significant Habitats Unit



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D980508139

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER Leachate	1	Camo/Poughkeepsie, NY	available

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	No readings above background.

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>NUS Corp, Edison, NJ/LMS Engineers</u> <small>(Name of organization or individual)</small>
03 MAPS <input type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>NUS Corp./LMS Engineers, Pearl River, NY</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references e.g. State files, sample analysis reports)

NUS Corp.
LMS Site Inspection, 12/15/88
DCHD



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D980508139

II. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME Whitney Aggregates, Inc.			02 D+B NUMBER		08 NAME			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME c/o James Hosie			02 D+B NUMBER		08 NAME			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) RD 2, Box 369F			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY Rhinebeck		06 STATE NY	07 ZIP CODE 12572		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D+B NUMBER		08 NAME			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D+B NUMBER		08 NAME			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	

III. PREVIOUS OWNER(S) (List most recent first)

IV. REALTY OWNER(S) (if applicable - list most recent first)

01 NAME Mr. Stanley Lewis			02 D+B NUMBER		01 NAME			02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY Katonah		06 STATE NY	07 ZIP CODE		05 CITY		06 STATE	07 ZIP CODE	
01 NAME Mr. Fred Lee (deceased)			02 D+B NUMBER		01 NAME			02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		05 CITY		06 STATE	07 ZIP CODE	
01 NAME			02 D+B NUMBER		01 NAME			02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		05 CITY		06 STATE	07 ZIP CODE	

V. SOURCES OF INFORMATION (Give specific references - e.g., local real estate brokers, etc.)

Interview with James Hosie.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

D1 STATE D2 SITE NUMBER
NY D980508139

II. CURRENT OPERATOR (Provide # different from owner)				OPERATOR'S PARENT COMPANY (If applicable)			
D1 NAME		D2 D+B NUMBER		D10 NAME		D11 D+B NUMBER	
D3 STREET ADDRESS (P.O. Box, RFD #, etc.)		D4 SIC CODE		D12 STREET ADDRESS (P.O. Box, RFD #, etc.)		D13 SIC CODE	
D5 CITY		D6 STATE	D7 ZIP CODE	D14 CITY		D15 STATE	D16 ZIP CODE
D8 YEARS OF OPERATION		D9 NAME OF OWNER					
III. PREVIOUS OPERATOR(S) (List most recent first, provide only # different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)			
D1 NAME		D2 D+B NUMBER		D10 NAME		D11 D+B NUMBER	
D3 STREET ADDRESS (P.O. Box, RFD #, etc.)		D4 SIC CODE		D12 STREET ADDRESS (P.O. Box, RFD #, etc.)		D13 SIC CODE	
D5 CITY		D6 STATE	D7 ZIP CODE	D14 CITY		D15 STATE	D16 ZIP CODE
D8 YEARS OF OPERATION		D9 NAME OF OWNER DURING THIS PERIOD					
1 to 8		Mr. Fred Lee					
D1 NAME		D2 D+B NUMBER		D10 NAME		D11 D+B NUMBER	
D3 STREET ADDRESS (P.O. Box, RFD #, etc.)		D4 SIC CODE		D12 STREET ADDRESS (P.O. Box, RFD #, etc.)		D13 SIC CODE	
D5 CITY		D6 STATE	D7 ZIP CODE	D14 CITY		D15 STATE	D16 ZIP CODE
D8 YEARS OF OPERATION		D9 NAME OF OWNER DURING THIS PERIOD					
D1 NAME		D2 D+B NUMBER		D10 NAME		D11 D+B NUMBER	
D3 STREET ADDRESS (P.O. Box, RFD #, etc.)		D4 SIC CODE		D12 STREET ADDRESS (P.O. Box, RFD #, etc.)		D13 SIC CODE	
D5 CITY		D6 STATE	D7 ZIP CODE	D14 CITY		D15 STATE	D16 ZIP CODE
D8 YEARS OF OPERATION		D9 NAME OF OWNER DURING THIS PERIOD					

IV. SOURCES OF INFORMATION (List specific references to # of sites for which data was collected)

DCHD
NUS Corp.
Interview with James Hosie



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

D1 STATE D2 SITE NUMBER
NY D980508139

II. ON-SITE GENERATOR

D1 NAME	D2 D+B NUMBER	
D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE	
D5 CITY	D6 STATE	D7 ZIP CODE

III. OFF-SITE GENERATOR(S)

D1 NAME	D2 D+B NUMBER	D1 NAME	D2 D+B NUMBER
Dover residents			
D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE	D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE
D5 CITY	D6 STATE	D5 CITY	D6 STATE
	D7 ZIP CODE		D7 ZIP CODE
D1 NAME	D2 D+B NUMBER	D1 NAME	D2 D+B NUMBER
D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE	D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE
D5 CITY	D6 STATE	D5 CITY	D6 STATE
	D7 ZIP CODE		D7 ZIP CODE

IV. TRANSPORTER(S)

D1 NAME	D2 D+B NUMBER	D1 NAME	D2 D+B NUMBER
Dover residents			
D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE	D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE
D5 CITY	D6 STATE	D5 CITY	D6 STATE
	D7 ZIP CODE		D7 ZIP CODE
D1 NAME	D2 D+B NUMBER	D1 NAME	D2 D+B NUMBER
D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE	D3 STREET ADDRESS (P.O. Box, RFD#, etc.)	D4 SIC CODE
D5 CITY	D6 STATE	D5 CITY	D6 STATE
	D7 ZIP CODE		D7 ZIP CODE

V. SOURCES OF INFORMATION (See specific references to State files, sample analysis reports, etc.)

NUS Corp.
DCHD
Interview with James Hosie



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE: 02 SITE NUMBER
NY D980508139

II. PAST RESPONSE ACTIVITIES

01 ☐ A WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ B TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ C PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ D SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ E CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ F WASTE REPACKAGED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ G WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ H ON SITE BURIAL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ I IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ J IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ K IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ L ENCAPSULATION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ M EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ N CUTOFF WALLS
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ O EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ P CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.

01 ☐ Q SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No history.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D980508139

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R BARRIER WALLS CONSTRUCTED

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☒ S CAPPING/COVERING

04 DESCRIPTION

Cover placed over fill material after closure (date unknown).

02 DATE _____

03 AGENCY _____

01 ☐ T BULK TANKAGE REPAIRED

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ U GROUT CURTAIN CONSTRUCTED

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ V BOTTOM SEALED

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ W GAS CONTROL

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ X FIRE CONTROL

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ Y LEACHATE TREATMENT

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ Z AREA EVACUATED

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ 1 ACCESS TO SITE RESTRICTED

04 DESCRIPTION

No History.

02 DATE _____

03 AGENCY _____

01 ☐ 2 POPULATION RELOCATED

04 DESCRIPTION

No history.

02 DATE _____

03 AGENCY _____

01 ☐ 3 OTHER REMEDIAL ACTIVITIES

04 DESCRIPTION

02 DATE _____

03 AGENCY _____

III SOURCES OF INFORMATION (Cite specific references e.g., RCRA RIs, soil gas analysis reports)

DCHD

Interview with James Hosie



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508139

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL STATE LOCAL REGULATORY/ENFORCEMENT ACTION

None known.

III. SOURCES OF INFORMATION (Give specific references e.g. RCRA RSL, Aesthetics, etc.)

CHAPTER 6

DATA ADEQUACY AND RECOMMENDATIONS

6.1 DATA ADEQUACY

The preliminary HRS migration score (S_M) for the Route 22 West-side site was not scored for lack of information. Additional data are required to accurately complete the HRS. Information required to complete the HRS and characterize the site includes:

- o Groundwater - Data on water quality in the unconsolidated aquifer, hydraulic and geologic characterization of bedrock
- o Surface Water - Up- and downgradient sample collection
- o Direct Contact - Samples from leachate seep(s) to be collected and analyzed for TCL compounds

6.2 RECOMMENDATIONS

While no longer practiced, it was common during the 1960s to locate sanitary landfills in low-lying marshy areas (wetlands). The fill material is presumed to have been deposited in a marshy area and is still sitting in wet conditions. No documentation or allegations exist to suspect hazardous waste disposal at this site. Empty drums noted on the surface appeared to have been placed at the site after it was closed and covered. One leachate sample was collected. Iron and phenol were detected. Phenol was found just above the detection limit. However, these data do not conclusively support a case for the landfill being either hazardous or clean.

Hazardous constituents in the leachate have not been fully analyzed and the leachate may contain only metals and nonhazardous chemicals. It can also be demonstrated that all such old landfills

have some levels of hazardous constituents because of small amounts of hazardous household chemicals routinely discarded with garbage. The leachate could, without a liner or complete clay barrier, impact the surface waters and sediments in the marsh next to the site. Area soils (from tills) encourage surface water ponding because of high clay content. Therefore, if the site was not excavated before landfilling occurred, the soil may act as a natural barrier, preventing leachate from entering groundwater

A complete data set to support either case does not exist. Therefore, a stepped sampling program is recommended. Preliminary studies can be used to decide whether the site should be delisted to the Bureau of Municipal Waste (responsible for Part 360 [Solid Waste Management Facility] oversight) if no or very low levels of hazardous substances are discovered. A Phase II investigation should be conducted if hazardous substances are present in concentrations significantly above those expected from small quantities of household wastes.

6.2.1 Preliminary Studies

A low-level investigation is recommended to determine whether there is any need to conduct a Phase II investigation. It should consist of the following:

- o Residential Well Sampling - Groundwater samples should be collected from the houses in the vicinity of the site and analyzed for the full Target Compound List (TCL).
- o Leachate Sampling - Leachate, surface water, and sediment samples should be collected from the surface water and analyzed for the full TCL and Extraction Procedure (EP) Toxicity or Toxicity Characteristic Leaching Procedure (TCLP) compounds.

- o Soil Gas/Groundwater Sampling - A number of soil gas points should be installed on the landfill to detect any contamination. If feasible, two or three points should be extended to groundwater, and a sample should be collected and analyzed by a mobile laboratory.

6.2.2 Phase II Investigation

If the preliminary studies uncover some indications of hazardous wastes at the landfill, then a Phase II investigation should be conducted at the site. Since the preliminary studies should have supplied information normally included in the first few tasks of a Phase II, we recommend that this effort concentrate on the remaining tasks:

- o Geophysical Surveys - If the preliminary studies indicate the possibility of a contaminant plume leaving the site, a resistivity or conductivity survey may be useful to locate the plume. The geophysical survey could also determine depth to bedrock and moisture conditions in the fill.
- o Monitoring Wells - Based on soil gas and geophysical results, upgradient and downgradient monitoring wells should be installed and sampled to determine the local groundwater table fluctuations, gradients, and quality. Local residential wells should also be sampled.
- o Additional Sampling - Sampling of soil surface water and sediment sampling and analysis can be done if preliminary studies demonstrate the need.
- o Site Survey - The site should be surveyed to determine fill extent, sampling locations, and elevations.
- o Summary Report - A report should be written outlining findings and recommendations.

APPENDIX A
REFERENCES AND DATA SOURCES

APPENDIX A
REFERENCES AND DATA SOURCES

- [1] Interview with Mr. James Hosie of Whitney Aggregates, Inc.
- [2] USGS topographic map, Dover Plains, NY-Conn. 1958.
- [3] NUS Corporation. 1983. Potential Hazardous Waste Site, Site Inspection Report. Prepared for EPA.
- [4] Dutchess County Health Department site inspection reports.
- [5] New York State wetlands map.
- [6] 6 NYCRR Conservation, Part 701 and 825.
- [7] Secor, W. (Ed.). 1955. Soil survey, Dutchess County. U.S. Department of Agriculture, Soil Conservation Service, Cornell University Agricultural Experiment Station. U.S. Government Printing Office, Washington, DC. p. 92.
- [8] Simmons, E.T., Grossman, I.G., and Heath, R.C. 1961. Ground-Water Resources of Dutchess County, New York. Bulletin GW-43. U.S. Geological Survey/New York Water Resources Commission, Albany, New York. pp. 17, 18, 19, 43, and map.
- [9] Analytical data.

REFERENCE 1

INTERVIEW/QUESTIONNAIRE

Page 1 of 4

Site: Route 22, Westside
NYSDEC ID NO. 314029

Date: 7 April 1989

Address: Route 22
Dover, NY

Interviewer: M. Creager
Interview Type: phone

Interviewee: Mr. James Hosie
Phone No. (914) 229-7725
Affiliation: Vice President of
Whitney Aggregates, Inc.
(site owner)

Description and History of Site:

1. What is the current owner's name and address? How long? What was the property's intended use?
2. Who is the current operator of the area in question?
3. Who were the previous owners and/or operators (names, addresses and dates of ownership) during the time environmental problems occurred?
4. What type of site? (landfill, open dump, lagoon, treatment pond, structure, etc) Dates of activity.
5. Where is site located? Describe surrounding area, refer to roads, streams, railroads, shopping centers, etc., include brief sketch map of site.
6. Has the site topography changed? What is site like now? Were there any buildings added, torn down, still there? Are there any underground tanks? Where? Have any land, buildings and/or underground tanks been filled? When/where? Size of site.
7. Have there been any wells on the site? Are they still in use? When were they built? By whom? When filled? Which wells are closest to the site? Is there a water supply in area?

INTERVIEW/QUESTIONNAIRE

Page 2 of 4

8. Were there any catastrophies such as fire, flood, or building collapse? What happened afterwards? Where did debris go? Were there any environmental effects after the catastrophe?
9. What event caused this site to be the subject of an environmental investigation? Complaints, releases, etc? When?

Site Operations:

10. What process, function, or activity occurred at the site? What are the beginning and ending dates.
11. What chemicals were used at site? Amounts. How were these chemicals used at the site? How were they stored?
12. What wastes were produced at the site? What was done with wastes? Were they stored? Where?
13. What residential, commercial or industrial wastes were carried to and disposed of at the site?

Site Problems:

14. When did the site first start having problems? What types of problems?
15. What was done about the problems? Have they been resolved? Which ones corrected? Which ones have not been corrected?
16. Were there inspections of the site? By whom.
17. What regulatory agencies have contacted you or the company (in question) (NYSDEC, Health Dept., etc)?
18. Were there any soil, water, waste or air sampling analyses or reports? If yes, when and report reference?

Unresolved Questions and Followup:

19. Questions by site representative/interviewee.
Answers by LMS/interviewer.
20. Questions by LMS/interviewer.
Answers by site representative/interviewee.
21. Unresolved questions by either party.

INTERVIEW/QUESTIONNAIRE
ANSWERS

Page 3 of 4

1. Whitney Aggregates, Inc., c/o Mr. James Hosie, RD 2, Box 369F, Rhinebeck, NY 12572. Whitney Aggregates, Inc., has owned the property for approximately 10 years. They purchased the land as an investment.
2. Site is inactive. No current operator.
3. Previous owner was Mr. Stanley Lewis, Katonah, NY. The Town of Dover was the only operator.
4. The site is a landfill that was active from (approximately) 1967 to 1968.
5. The site is located approximately 1.75 miles south of Dover Plains along the west side of Route 22. The landfill occupies approximately 1 acre. The site is surrounded by woods in an unpopulated area. A railroad track trends north-south approximately 200 ft west of the site. Marshy areas exist north and south of the landfill. A stream flows west under Route 22 into the south marsh, then continues flowing west, turns north, and follows the eastern edge of the railroad embankment.
6. No. Landfill is relatively flat and covered. A small abandoned guardshack stands near the site entrance. The landfill occupies approximately 1 acre.
7. No. The closest wells are probably in Ontonagon approximately 0.5 miles to the north.
8. No.
9. I don't know.
10. Landfilling. 1967 to approximately 1968.
11. n/a
12. n/a
13. Municipal waste from the Town of Dover.
14. None known.
15. n/a
16. The Dutchess County Health Department.
17. No one has contacted him.
18. No.
- 19, 20 and 21.

INTERVIEW/QUESTIONNAIRE

Page 4 of 4

ACKNOWLEDGEMENT

I have read the transcript and agree the information is an accurate summary of information exchanged between myself and LMS interviewer. Any revisions to the transcript are noted below.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.


Interviewer:

Mark L. Greger

Date:

5/25/89

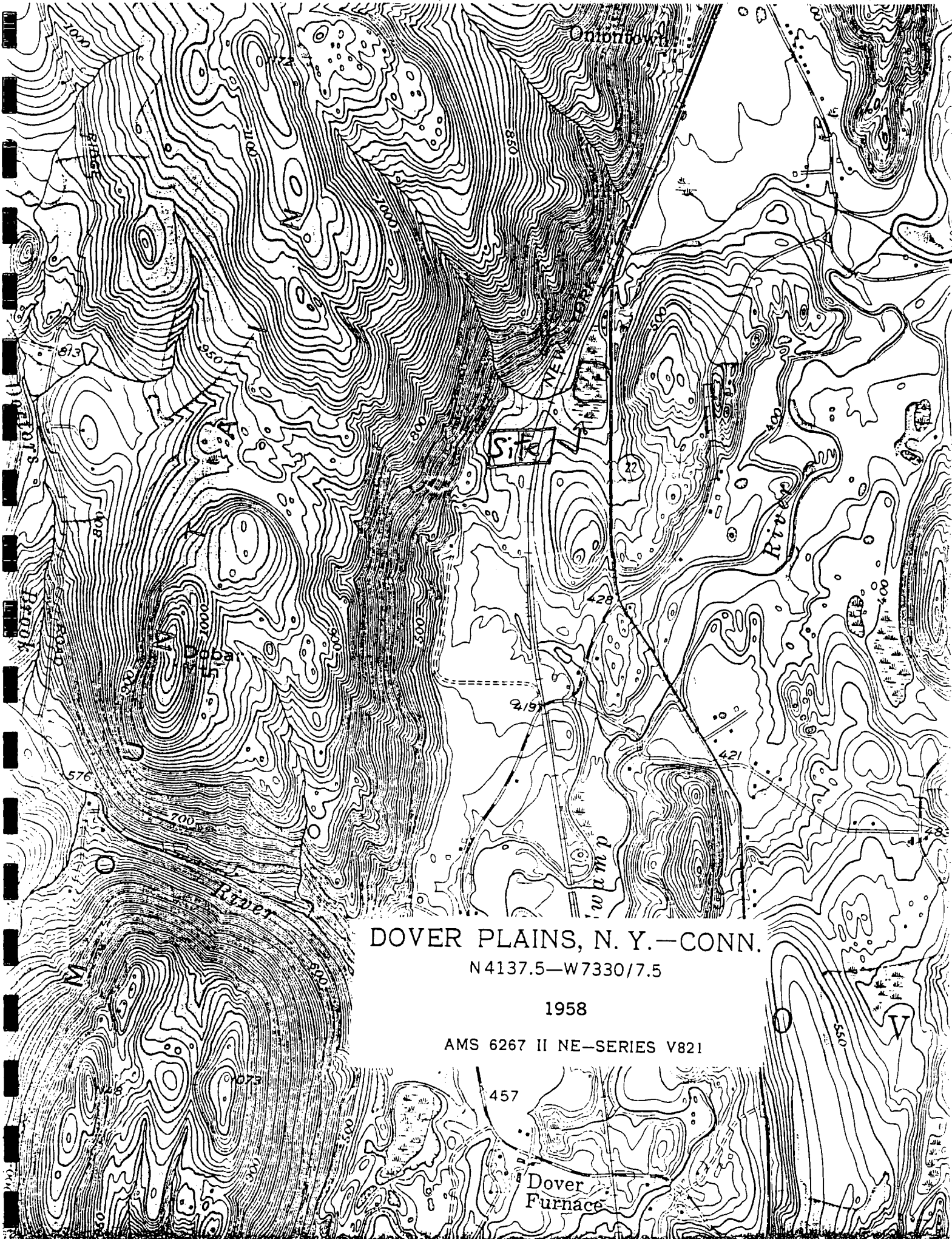
Interviewee:



Date:

5-10-83

REFERENCE 2



DOVER PLAINS, N. Y.—CONN.

N4137.5—W7330/7.5

1958

AMS 6267 II NE—SERIES V821

457

Dover
Furnace

REFERENCE 3



POTENTIAL HAZARDOUS WASTE SITE

EXECUTIVE SUMMARY

Dover Landfill #2

Site Name

NYD980508139

EPA Site ID Number

Route 22: South of Dover Plains
Address

02-8306-29

TDD Number

Dover, N.Y. 12522

Date of Site Visit: October 5, 1983

SITE DESCRIPTION

The site is a 5 acre former municipal landfill which operated from 1968-1974. The site is located in a rural area and is currently supporting vegetation. A wet marshy area lies to the southwest of the site. In December, 1979, the NY DEC sampled leachate on site and detected 38 mg/l of phenol.

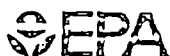
PRIORITY FOR FURTHER ACTION: High Medium x Low

RECOMMENDATIONS

Since the surrounding residents obtain their drinking water supplies from groundwater, the potential for a drinking water contamination exists. It is recommended that sampling be conducted to determine if phenol has contaminated the groundwater

Prepared by: Martin J. O'Neill
of NUS Corporation

Date: 10/17/83



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D980508139

II. SITE NAME AND LOCATION

01 SITE NAME (Local, common, or descriptive name of site) Dover Landfill #2		02 STREET ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER Route 22 - South of Dover Plains			
03 CITY Dover	04 STATE NY	05 ZIP CODE 12522	06 COUNTY Dutchess	07 COUNTY CODE 027	08 CONG. DIST. 25
09 COORDINATES LATITUDE 41° 42' 42" N LONGITUDE 73° 34' 10" W		10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN			

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 10, 5, 83 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1968 1974 BEGINNING YEAR ENDING YEAR		UNKNOWN	
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA CONTRACTOR NUS Corp. <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input type="checkbox"/> E. STATE <input type="checkbox"/> F. STATE CONTRACTOR <input type="checkbox"/> G. OTHER					

05 CHIEF INSPECTOR Martin J. O'Neill	06 TITLE Environmental Scientist	07 ORGANIZATION NUS Corp.	08 TELEPHONE NO. (201) 225-6160
09 OTHER INSPECTORS Arthur J. Clarke	10 TITLE Chemist	11 ORGANIZATION NUS Corp.	12 TELEPHONE NO. (201) 225-6160
Edward F. McTiernan	Environmental Scientist	NUS Corp.	(201) 225-6160
			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED Otto Sprossel	14 TITLE Supervisor	15 ADDRESS Town of Dover	16 TELEPHONE NO. (814) 832-6234
George Morse	Councilman	Rural Route 2 Box 212	(814) 877-9105
Richard Rennia	Councilman	Wingdale, NY 12594	(814) 877-9105
			()
			()
			()

17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 1015 hr.	19 WEATHER CONDITIONS Sunny, warm 60-65°F, light wind, visibility good.
---	-----------------------------------	--

IV. INFORMATION AVAILABLE FROM

01 CONTACT Mark Haulenbeek	02 OF (Agency/Organization) US EPA, Environmental Services Division		03 TELEPHONE NO. (201) 321-6685	
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Martin J. O'Neill	05 AGENCY FIT II	06 ORGANIZATION NUS Corp.	07 TELEPHONE NO. 201-225-6160	08 DATE 10, 10, 83 MONTH DAY YEAR

THAT THE COVER POPULANT AS

1

OF 1960 WAS 7259.

UPON INSPECTION FIT FOUND THE

SITE IN THE MIST OF REGENERATION.

COVER MATERIAL WAS ROCKY IN

NATURE. TREES WERE GROWING ON

THE FORMER FILL AREA. TREES

WERE 10-18 FEET HIGH. AN

AREA OF PONDING WATER - MARSHY

WAS LOCATED AT THE EDGE OF

THE ~~SITE~~ FILL AREA.

NO GARBAGE WAS EXPOSED AT

THE SITE. SOME BULKY ITEMS -

TIRES (ETC.) WERE NOTICED ON

SITE.

NO HNU READINGS ABOVE 0PPM

WERE DETECTED WHILE ON SITE.

HNU A - FIELD READY DATE 10/3/83

10-10-83
M. J. [Signature]

REFERENCE 4

~~Same for Vermont Dept. of
Homes, location of gravel bank~~

Refuse Disposal Area - Town of Dover (Route 22)

Operation: The above refuse disposal site serving the residents of the Town of Dover is by operation an open face dump site. Both putrescible and non-putrescible material are disposed of at the site with no segregation of larger materials. All of the refuse is burned though no permit for same has been issued.

The refuse, which is deposited along a seventy-five foot face with a slope twenty feet deep, is not compacted and covered very infrequently. The only equipment used is the Town jeep with a snow blade. The cover material, a sandy loam, is obtained from the Town gravel bank which is located six miles from the disposal site. There is no attendant on duty.

- Deficiencies:
1. The burning of refuse is ~~always~~ practiced without a permit.
 2. The refuse is not compacted and is covered ~~very~~ infrequently.
 3. Dumping is not confined to an area which can be effectively maintained.
 4. Proper equipment is not used or available for a refuse disposal operation.
 5. No measures are taken to control insects and rodents other than periodic baiting.
 6. Site is not posted directing where to dump and to prohibit burning.
 7. No fire fighting equipment is available on the site.
 8. There is no means of permitting entrance to the dump site.
 9. Adequate fencing is not provided to confine burning refuse.
 10. No attendant is on duty thus resulting in a lack of any supervision.

Physical Environment: Site is flat, wooded, and swampy. ~~Site is located~~
right adjacent to road 33, ^{and the} closest houses are within a one mile
radius.

Summary: There is no information and ^{the} info function is very unsatisfactory. The net is based on a one year basis.

Celene DuPont Area - T. Dover (Oct 22)

No gate is provided at entrance. No fencing. Access road in good condition.

Entrance posted stating dogs fine. All types of refuse are dumped and large material is not segregated. No attendant on duty. Site is swampy and wooded. Refuse is constantly burning. Refuse is not compacted and covered very rarely. Town equipment is used and consists of two jeeps with snow blades and dump trucks. Dump is open face with a 20 foot slope and 75 feet in length. Dumping is not confined and haphazardly done. No cover material on site. As obtained from Town gravel bank. Plus very frequent and many evidences of rats. Dumped by Town residents. No fire fighting equipment on site. Very poor operation.

DUTCHESS COUNTY HEALTH DEPARTMENT

MEMORANDUM

TO: File

December 26, 1967

FROM: A. LaMastra

SUBJECT: BURNING IN TOWN DUMP - TOWN OF DOVER

On 12/21/67, at approximately 10:45 A.M., I noticed a large quantity of black smoke coming from the Dover disposal area on Route 22 in the Town of Dover. Upon arriving at the disposal area, I found numerous small fires burning and one large fire which was producing the bulk of the dark smoke.

A Mr. William Slocum who is employed by Hunt's Furniture, Town of Dover, was emptying the contents of a truck owned by Capital Roofing of Poughkeepsie. According to Mr. Slocum, Capital Roofing is doing work at the Hunt Factory and on his lunch hour he drove the truck to the dump. He was directed to the spot and requested to dump the material on the existing fire. The material consisted of roofing debris including some lumber, but mostly tar paper.

Inquiring of the persons at the site, I received the usual answer. The caretaker did not know who started the fire, and, of course, did not tell anyone to burn. He did not know how to get in touch with anyone of a more responsible position. I feel that something should be done with the town officials since this flagrant burning is a common occurrence.

AL:jt

H. V. SCORALICH

REF 2/3

TOWN OF FOWLE REFUSE DISPOSAL SITE - ROUTE 22

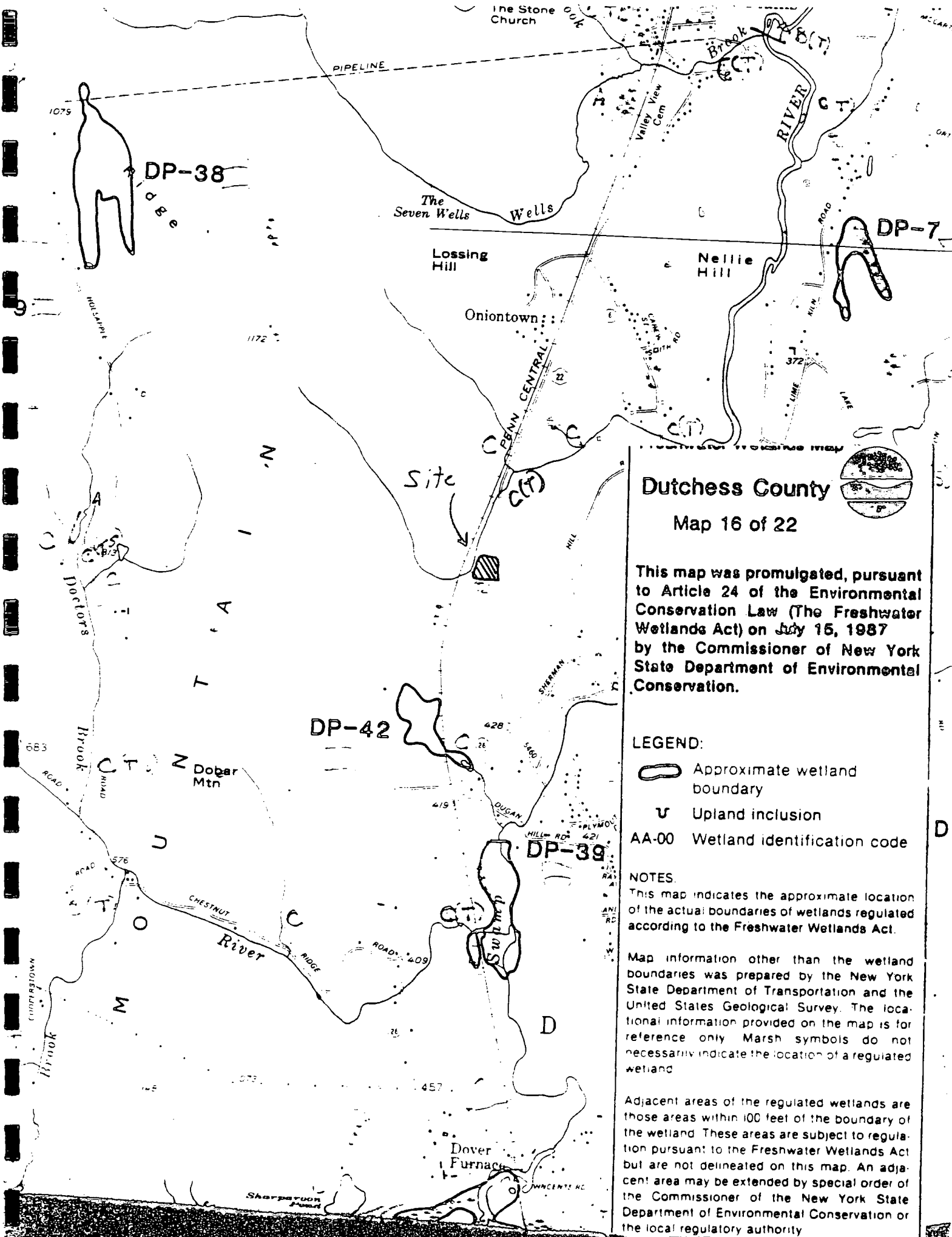
JUNE 16, 1968

Inspections of the above site have shown that there exists detrimental conditions as a result of refuse being deposited in an area where surface water drains and where springs may exist under the fill. A drainage pipe runs under Route 22 in an east-to-west direction, thus resulting in surface water draining into an area south and adjacent to the dumpsite. A steady stream of leachate is emanating at the northwest end of the dumpsite and flowing into a stream, which is located approximately 75 feet northwest of the dumpsite. There is a noted color difference in the stream where the leachate intersects and that upstream from the intersection.

As a result of the water conditions, I feel that a further evaluation should be made to determine if refuse dumping should continue.

DTR: es

REFERENCE 5





Dutchess County

Map 16 of 22

This map was promulgated, pursuant to Article 24 of the Environmental Conservation Law (The Freshwater Wetlands Act) on July 15, 1987 by the Commissioner of New York State Department of Environmental Conservation.

LEGEND:

-  Approximate wetland boundary
-  Upland inclusion
- AA-00 Wetland identification code

NOTES:

This map indicates the approximate location of the actual boundaries of wetlands regulated according to the Freshwater Wetlands Act.

Map information other than the wetland boundaries was prepared by the New York State Department of Transportation and the United States Geological Survey. The locational information provided on the map is for reference only. Marsh symbols do not necessarily indicate the location of a regulated wetland.

Adjacent areas of the regulated wetlands are those areas within 100 feet of the boundary of the wetland. These areas are subject to regulation pursuant to the Freshwater Wetlands Act but are not delineated on this map. An adjacent area may be extended by special order of the Commissioner of the New York State Department of Environmental Conservation or the local regulatory authority.

REFERENCE 6

PART 825

HOUSATONIC RIVER DRAINAGE BASIN

(Statutory authority: Environmental Conservation Law, § 17-0301)

Sec.	Sec.
825.1 Adopting order	825.6 Table I
825.2 Designated waters	825.7 Map 1
825.3 Definitions	825.8 Map 2
825.4 Special conditions	825.9 Quadrangle maps
825.5 Assigned classifications and standards of quality and purity	

Historical Note

Part amd. filed April 18, 1986 eff. 30 days after filing. Amended statutory authority.

Section 825.1 Adopting order. (a) Pursuant to article 12 of the Public Health Law, the Water Resources Commission, after proper study and following public hearings conducted by the commission, held on due notice, hereby adopts and assigns the following classifications and standards of quality and purity to all surface waters within the Housatonic River drainage basin, as hereinafter defined. Said drainage basin includes all land and surface water areas of the Housatonic River drainage basin within New York State.

(b) This adoption and assignment of standards of quality and purity to the above designated waters shall be effective September 22, 1965.

825.2 Designated waters. The designated waters are located in the Housatonic River drainage basin within New York State, as outlined on map 1, section 825.7, *infra*, and as contained within the topographical limit line shown on the reproduced topographical reference maps in section 825.9, *infra*.

825.3 Definitions. The several terms, words or phrases hereinafter mentioned shall be construed as follows:

(a) *Item No.* In table I an item number is assigned consecutively to each specifically designated waters.

(b) *Waters index numbers* as appearing in table I shall mean that number assigned to any designated waters for the purpose of identification.

(1) The numbering or index system used to identify specific waters of New York State was adapted from that used by the New York State Conservation Department in its biological survey series of reports on the watersheds of the State. The primary waters of a drainage basin, a stream or large lake, is referred to by name or abbreviation. Ponds and lakes are numbered consecutively as they are encountered, such number being preceded by the letter P. This system also involves the consecutive numbering of tributaries as they enter a stream, progressing upstream from the mouth. Tributaries of lakes or ponds are numbered consecutively as they enter, progressing clockwise around the lake or pond from its outlet or mouth. Isolated lakes and ponds are referenced by a waters index number merely for convenience of their identification and location within a subdrainage basin, and it is not necessarily indicative of their being tributary to any waters to which no surface connection is shown on the reference maps.

TITLE
6

CONSERVATION

PART
825

Ch. X Division of Water
Resources (continued)

§ 825.9

TITLE 6 CONSERVATION

DOVER



§ 625.6 Table I.

TABLE I

Classifications and Standards of Quality and Purity Assigned to Fresh Surface Waters within the Housatonic River Drainage Basin, Dutchess and Columbia Counties, State of New York

Item No.	Waters Index Number	Name	Comments	Map Ref. No.	Class	Standards
1	Conn. 12 portion	Tributary of Housatonic River	From New York-Conn. state line to 1000 ft. upstream.	O-25se	B	B
2	Conn. 12 portion and trib. 12-1	Tributary of Housatonic River and subtributary	From 1000 ft. upstream from state line to source.	O-25se	C	C
3	Conn. 14 portion	Tributary of Housatonic River	From New York-Conn. state line to 1000 ft. upstream.	O-25se	B	B
4	Conn. 14 portion	Tributary of Housatonic River	From 1000 ft. upstream from state line to source.	O-25se	C	C(TS)
5	Conn. 14-P 112	Brady pond		O-25se	C	C
6	Conn. 15 portion	Tenmile River	From New York-Conn. state line to Lake Ellis Road Bridge.	O-25ne	B	B(T)
6a	Conn. 15 portion	Tenmile River	From Lake Ellis Road Bridge to trib. 6.	O-25ne	C	C(T)
7	Conn. 15 portion	Tenmile River	From trib. 6 to trib. 7.	O-25ne	B	B(T)
8	Conn. 15 portion	Tenmile River	From trib. 7 to source.	N-25se	C	C(T)
9	Conn. 15-1	Tributary of Tenmile River		O-25ne	C	C(T)

CHAPTER X DIVISION OF WATER RESOURCES

§ 625.6

1389 CN 4-30-86

TABLE I (cont'd.)

1402 CN 4-30-86

§ 825.6

TITLE 6 ENVIRONMENTAL CONSERVATION

Item No.	Waters Index Number	Name	Comments	Map Ref. No.	Class	Standards
31	Conn. 15-4 portion	Swamp River	From trib. 8 to trib. 15.	O-25se	C	C(T)
32	Conn. 15-4 portion	Swamp River	From trib. 15 to source.	O-25ne O-25sw	C	C(T)
→ 33	Conn. 15-4-1	Tributary of Swamp River		O-25ne	C	C(T)
34	Conn. 15-4-1-1, 2	Subtributaries of Swamp River		O-25ne	C	C
35	Conn. 15-4-1a	Tributary of Swamp River		O-25ne	C	C
36	Conn. 15-4-2	Mill River or Dover Furnace Brook		O-25ne O-25nw	C	C(T)
37	Conn. 15-4-2-a	Tributary of Mill River		O-25ne	C	C
38	Conn. 15-4-2-1	Coopertown Brook		O-25ne	C	C(T)
39	Conn. 15-4-2-1-1	Tributary of Coopertown Brook		O-25ne O-25nw	C	C(T)
39.1	Conn. 15-4-2-1-1a and tribs. 1a-1, 1a-2, 1a-3, 1a-3-P 1116c	Tributary of Coopertown Brook and subtributaries		O-25ne O-25nw	C	C

701.19 Classes and standards for fresh surface waters. The following items and specifications shall be the standards applicable to all New York fresh waters which are assigned the classification of AA, A, B, C or D, in addition to the specific standards which are found in this section under the heading of each such classification.

Quality Standards for Fresh Surface Waters

Items	Specifications
1. Turbidity.	No increase except from natural sources that will cause a substantial visible contrast to natural conditions. In cases of naturally turbid waters, the contrast will be due to increased turbidity.
2. Color.	None from man-made sources that will be detrimental to anticipated best usage of waters.
3. Suspended, colloidal or settleable solids.	None from sewage, industrial wastes or other wastes which will cause deposition or be deleterious for any best usage determined for the specific waters which are assigned to each class.
4. Oil and floating substances.	No residue attributable to sewage, industrial wastes or other wastes nor visible oil film nor globules of grease.
5. Taste and odor-producing substances, toxic wastes and deleterious substances.	None in amounts that will be injurious to fishlife or which in any manner shall adversely affect the flavor, color or odor thereof, or impair the waters for any best usage as determined for the specific water which are assigned to each class.
6. Thermal discharges.	(See Part 704 of this Title.)

CLASS "AA"

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters. The waters, if subjected to approved disinfection treatment, with additional treatment if necessary to remove naturally present impurities, will meet New York State Department of Health drinking water standards and will be considered safe and satisfactory for drinking water purposes.

Quality Standards for Class "AA" Waters

Items	Specifications
1. Colliform.	The monthly median colliform value for 100 ml of sample shall not exceed 50 from a minimum of five examinations and provided that not more than 20 percent of the samples shall exceed a colliform value of 240 for 100 ml of sample.
2. pH	Shall be between 6.5 and 8.5.

3. Total dissolved solids.	Shall be kept as low as practicable to maintain the best usage of waters, but in no case shall it exceed 500 milligrams per liter.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.

CLASS "A"

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters. The waters, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to reduce naturally present impurities, will meet New York State Department of Health drinking water standards and will be considered safe and satisfactory for drinking water purposes.

Quality Standards for Class "A" Waters

Items	Specifications
1. Colliform.	The monthly median colliform value for 100 ml of sample shall not exceed 5,000 from a minimum of five examinations, and provided that not more than 20 percent of the samples shall exceed a colliform value of 20,000 for 100 ml of sample and the monthly geometric mean fecal colliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations.
2. pH	Shall be between 6.5 and 8.5.
3. Total dissolved solids.	Shall be kept as low as practicable to maintain the best usage of waters, but in no case shall it exceed 500 milligrams per liter.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.

CLASS "B"

Best usage of waters. Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

Quality Standards for Class "B" Waters

Items	Specifications
1. Colliform.	The monthly median colliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations, and provided that not more than 20 percent of the samples shall exceed a colliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal colliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.
2. pH	Shall be between 6.5 and 8.5.
3. Total dissolved solids.	None at concentrations which will be detrimental to the growth and propagation of aquatic life. Waters having present levels less than 500 milligrams per liter shall be kept below this limit.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.

CLASS "C"

Best usage of waters. The waters are suitable for fishing and fish propagation. The water quality shall be suitable for primary and secondary contact recreation even though other factors may limit the use for that purpose.

Quality Standards for Class "C" Waters

Items	Specifications
1. Colliform.	The monthly median colliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations, and provided that not more than 20 percent of the samples shall exceed a colliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal colliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.
2. pH	Shall be between 6.5 and 8.5.

- | | |
|----------------------------|---|
| 3. Total dissolved solids. | None at concentrations which will be detrimental to the growth and propagation of aquatic life. Waters having present levels less than 500 milligrams per liter shall be kept below this limit. |
| 4. Dissolved oxygen. | For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l. |

CLASS "D"

Best usage of waters. The waters are suitable for fishing. The water quality shall be suitable for primary and secondary contact recreation even though other factors may limit the use for that purpose. Due to such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery or stream bed conditions, the waters will not support fish propagation.

Conditions related to best usage of waters. The waters must be suitable for fish survival.

Quality Standards for Class "D" Waters

Items	Specifications
1. pH	Shall be between 6.0 and 9.5.
2. Dissolved oxygen.	Shall not be less than 3 milligrams per liter at any time.
3. Colliform.	The monthly median colliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations and provided that not more than 20 percent of the samples shall exceed a colliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal colliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.

Historical Note

Sec. added by renum. and amd. 701.4, filed July 3, 1985; amd. filed Sept. 20, 1985 eff. 30 days after filing.

701.20 Classes and standards for saline surface waters. The following items and specifications shall be the standards applicable to all New York saline surface waters which are assigned the classification of SA, SB, SC or SD, in addition to the specific standards which are found in this section under the heading of each such classification.

REFERENCE 7

SOIL SURVEY

Dutchess County New York



Series 1939, No. 23

Issued December 1955

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
In cooperation with the
CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION

Hudson silty clay loam, steep phase (30% slopes) (Hw).—This heavy-textured soil occurs on steep slopes extending from the uplands down to the Hudson River. It is associated with Hudson silty clay loam, hilly phase, and other Hudson soils.

The soil profile is similar to that of Hudson silty clay loam, hilly phase. It is characterized by a thin acid solum of silty clay loam over layers of relatively unweathered calcareous silt and clay. The soil is highly susceptible to erosion when cleared and is subject to slips and landslides on the steeper slopes even when under forest. Practically all of it is in forest, its best use.

Kendaia silt loam (0-3% slopes) (Ka).—This poorly drained soil has developed from moderately deep or deep glacial till composed chiefly of limestone, with which some slate, sandstone, schist, and gneiss rock materials are intermixed. The soil occurs on very gentle slopes or nearly level areas on the lower parts of slopes and at the heads of streams in the limestone valleys. Internal drainage and surface runoff are slow. The soil commonly occurs between areas of very poorly drained Lyons soils in the depressions and areas of better drained gently sloping or rolling Amenia, Pittsfield, Stockbridge, Dover, and Wassala soils.

The 10-inch surface soil is dark brown or dark grayish brown in pasture areas. It is friable, breaks up into small irregular fragments, is slightly alkaline, and contains numerous roots. The subsoil from 10 down to 17 inches is brownish-gray silt loam mottled with gray and rusty brown. It is firm or slightly compact, alkaline, and becomes more strongly mottled with depth. From 17 down to 26 inches the subsoil is very compact light-brown heavy gritty loam strongly mottled with yellow, rust brown, and gray. This layer is calcareous and contains many partly decomposed limestone pebbles. Extending from 26 to 36 inches or more, the substratum is very compact calcareous grayish-brown gravelly loam mottled with yellow and rust brown. This layer extends to several feet, and mottling decreases with depth. Bedrock seldom outcrops. Pieces of gravel, predominantly from limestone, are present throughout the profile. Few roots penetrate below 17 inches.

Use and management.—Kendaia silt loam has poor natural drainage. A few areas of it have been drained artificially. A few small fields occurring among larger areas of better drained soils have been ditched. The cultivated areas are generally small and lie adjacent to areas of the better drained Pittsfield, Stockbridge, Amenia, or Dover soils. They are used like these associated soils but produce lower yields.

Pasture is generally fair to excellent. As on nearly all the limestone soils, bluegrass and wild white clover are abundant. Few weeds grow in the better permanent pastures. A few operators top-dress with superphosphate to stimulate the growth of bluegrass and wild white clover and thus crowd out the weeds. Hardhack is sometimes a pest. In poorer pastures plantain, thistle, and other weeds, some cedar, and other trees and brush are present.

Undrained areas are better suited to pasture than to cultivated crops. Corn, small grains, and vegetables are frequently drowned out during temporary flooding. Alfalfa is seldom a success. Ladino clover in

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REFERENCE 8

STATE OF NEW YORK
DEPARTMENT OF CONSERVATION
WATER RESOURCES COMMISSION

Ground-Water Resources of Dutchess County, New York

By

E. T. SIMMONS, I. G. GROSSMAN, AND R. C. HEATH
Geologists, U. S. Geological Survey



Prepared by the
U. S. GEOLOGICAL SURVEY
in cooperation with the
NEW YORK WATER RESOURCES COMMISSION

BULLETIN GW-43

ALBANY, N. Y.

1961

The Cheshire is not important as a source of ground water because of its small areal extent and because it underlies steeply sloping hillsides which are sparsely settled. Only five wells in the county are known to tap quartzite; these are listed in table 13.

Stockbridge limestone.--Over the Cheshire quartzite is a thick sequence of carbonate rocks, which underlie a much greater part of the county than the quartzite. In the east, carbonate rocks lie beneath the broad Harlem Valley, which contains Tenmile River and its principal tributaries and which extends almost without interruption from the Putnam County line to the Columbia County line. In the south, the valley of Fishkill Creek is underlain by limestone which extends from Beacon northeastward to the head of the creek. Other areas in the western and central parts of the county also are underlain by elongate masses of carbonate rocks (pl. 2).

Several different names have been applied to the carbonate rocks in different parts of the county, including Barnegat limestone (Mather, 1843, p. 410), Fishkill limestone (Gordon, 1911, p. 70), and Wappinger limestone (Gordon, p. 48). Knopf (1956, p. 1817) found that the carbonate rocks near Stissing Mountain range in age from Early Cambrian to Early Ordovician and divided them into the Stissing dolomite, Pine Plains formation, Briarcliff, dolomite, Halcyon Lake formation, and Rochdale limestone. Because there appear to be no essential differences in the water-bearing properties of the carbonate rocks, all are included in this report under the Stockbridge limestone, after the locality in Massachusetts where they were first described (Emmons, 1842, p. 154-156).

The carbonate rocks range in composition from almost pure calcium carbonate (limestone) to almost pure calcium-magnesium carbonate (dolomite). Limestone is more abundant in the upper part of the sequence and dolomite is more common in the lower part. Table 3 lists an analysis of a typical sample of dolomite from the Stockbridge limestone.

This analysis shows that more than 10 percent of the dolomite consists of impurities, chiefly silica and alumina. In some localities these impurities are abundant enough to form sandy and shaly beds in the Stockbridge.

Table 3.--Chemical composition of dolomite 1/ from the
Stockbridge limestone

Determination	Percent by weight
Lime (CaO).....	29.07
Magnesia (MgO).....	16.29
Carbonic acid (H ₂ CO ₃).....	40.76
Alumina (Al ₂ O ₃).....	2.33
Ferric oxide (Fe ₂ O ₃).....	.47
Silica (SiO ₂).....	10.17
Total.....	99.09

1/ Collected at the Stoneco quarry of the Clinton Point
Stone Co. about 4 miles south of Poughkeepsie.
Analysis from Ries (1901, p. 779).

The metamorphism of the Stockbridge limestone generally increases in intensity from northwest to southeast. In the northwest and west, the formation is relatively undisturbed and original bedding is easily visible. Fossils have been found in the formation as far south as Clove Valley. Farther east, however, as in the Valley of Swamp River, the formation has been metamorphosed to a marble and the beds are severely folded. Balk noted that the folding is greater in the thin layers than in the thicker ones and that it is greatest near thrust faults. In the southeastern part of the county, the marble has been so severely deformed by plastic flow that it appears to be wrapped around stronger rocks. South of Pawling, the marble contains masses of schist that are folded and faulted into the limestone.

The deformation of the Stockbridge limestone makes it difficult to determine its thickness. In southwestern Putnam County, where the formation is relatively undisturbed, the thickness is about 1,000 feet. At Stissing Mountain, near Pine Plains in the north-central part of Dutchess County, the thickness of the different limestones and dolomites measured by Knopf (1946, p. 1211) totals 2,800 feet. The thickness of the carbonate rocks is

probably about 1,000 feet in most places in the county. The Stockbridge limestone weathers readily and commonly forms valley and lowland areas. In the valley of Fishkill Creek, solution cavities filled with clay and sand have been reported.

Hudson River formation.--The Hudson River formation is the most extensive bedrock unit in the county. As may be seen from plate 2, it extends from the Hudson River in the west to the Connecticut State line in the east, interrupted by only a few relatively narrow limestone belts. The name "Hudson River slate group" was first used by Mather (1840, p. 212, 256-258) for the slaty rocks in the southeastern part of the State. Gordon (1911) mapped these rocks in the Poughkeepsie quadrangle as the "Hudson River group." Berkey and Rice (1921) mapped the same rocks in southwestern Dutchess County as "Hudson River shales and phyllites." In the southeastern part of the county these rocks are referred to as "Hudson River pelite" in publications by Balk (1936) and Barth (1936). In the Copake quadrangle in southeastern Columbia County, the names Elizaville shale (mainly Cambrian, possibly including some Lower Ordovician), Berkshire schist (Ordovician), and Trenton black slate (Ordovician) have been used by Weaver (1957, pl. 1) for rocks that extend southward into northeastern Dutchess County. Ruedemann (1942) divided the predominantly argillaceous rocks in the Catskill quadrangle, in northwestern Dutchess County, into the Nassau beds and Schodack shale (including Bomoseen grit) of Cambrian age, and the Deepkill shale and Normanskill shale (including the Mount Merino member and the Austin Glen member) of Ordovician age. As used in this report, the Hudson River formation includes all the argillaceous and schistose rocks in Dutchess County.

Although the Hudson River formation is preponderantly argillaceous, it includes a large variety of rock types. The lower part of the unit contains much sandstone ("grit") and is locally called bluestone by some well drillers. The unit also contains chert and beds of sandstone, limestone, and conglomerate. Quartz veins are very abundant. The shale itself is locally black, gray, red, or green.

The metamorphism of the Hudson River formation increases in intensity from northwest to southeast, just as in the Stockbridge limestone. At Red Hook, in the northwestern part of the county, the unit is a shale. The shale grades imperceptibly southeastward into a slate and then into a lustrous phyllite. Between the valley of Wappinger Creek and the headwaters of Fishkill Creek, it is chiefly a phyllite. Farther southeast, between Fishkill Creek and the Harlem Valley it is predominantly a garnet-bearing schist. In the extreme southeastern part of the county, east of Pawling, it is a gneissic schist. The gneissic schist in this area contains amphibolite lenses and pegmatite intrusions.

Amenia.--Amenia (population 800) is supplied from two wells, Du 99 and Du 100, owned by the Amenias Water Co. Consumption averages about 100,000 gpd and maximum consumption is about 150,000 gpd.

Beacon.--Beacon (population 14,000) was formerly supplied entirely by the Cargill, Mount Beacon, and Melzingah reservoirs, with capacities of 160 million, 124 million, and 55 million gallons, respectively. The supply became inadequate during dry periods in the decade 1940-50, and additional water was pumped from Fishkill Creek. In 1948 and 1949 several test wells were drilled in the Fishkill Valley, about 4 miles northeast of Beacon, to determine whether a satisfactory ground-water supply could be obtained (see table 13, wells Du 626 and Du 630). Well Du 630, which was completed in 1950, reportedly yielded 1,400 gpm. The average consumption from ground-water and surface-water sources is 1,750,000 gpd. All water is chlorinated before distribution.

Dover Plains.--Prior to 1957, water for the village of Dover Plains (population 700) was obtained entirely from Seven Wells Brook. Since 1957, the supply has been supplemented with water from a drilled well. Distribution is effected by gravity. The maximum consumption is 120,000 gpd but the average is about 75,000 gpd. About 90 percent of the water is used by industries. The water is chlorinated.

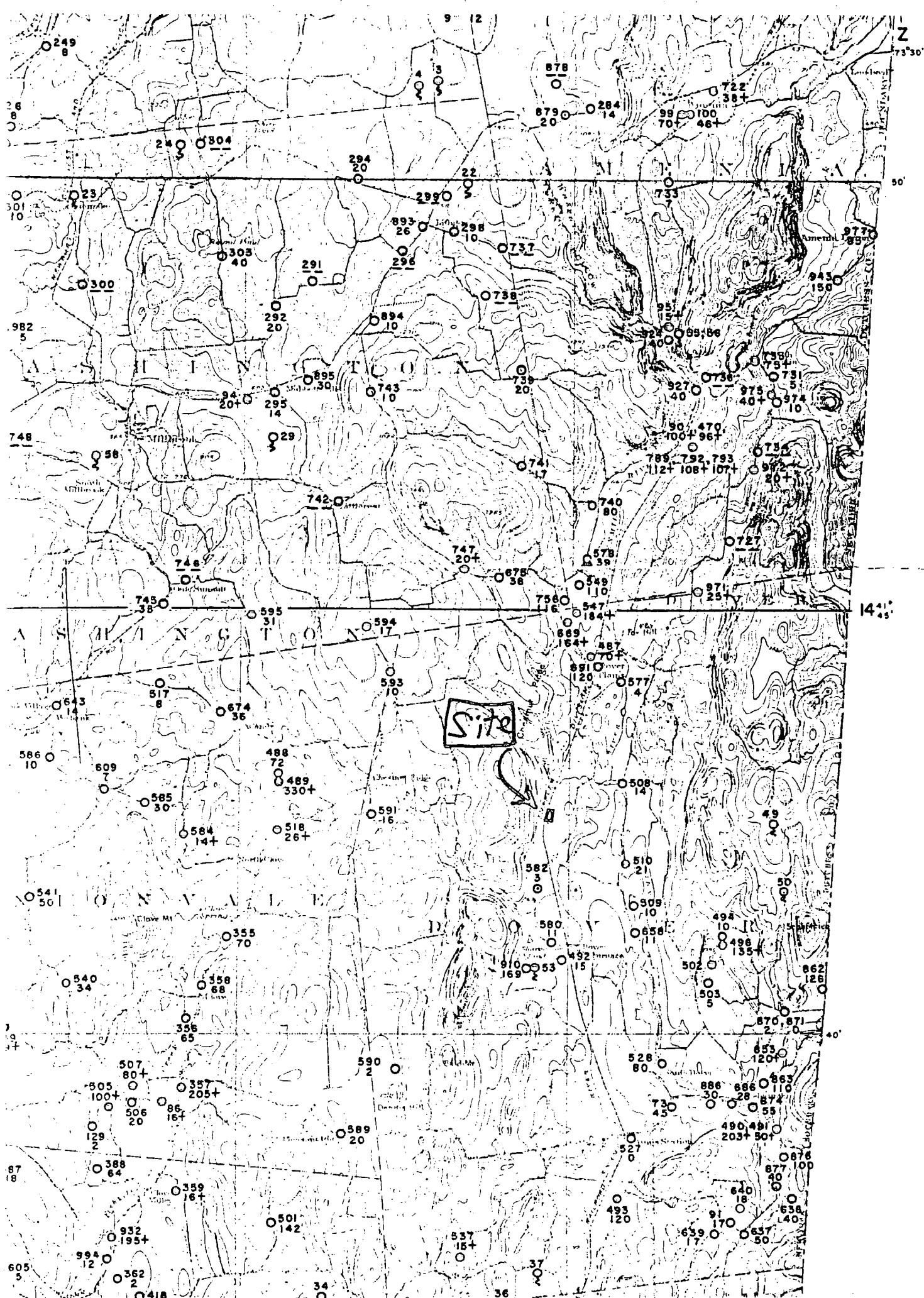
Fishkill.--Fishkill (population 720) is supplied by water from Hell Hollow Brook and Clover Brook. The water from these streams is stored in a reservoir with a capacity of 6 million gallons, situated 5 miles south of the village. Water is distributed from the reservoirs by gravity. It is chlorinated and copper sulfate also is used to control the growth of algae in the reservoir when the water supply is low. The average consumption is 125,000 gpd but the maximum reaches 500,000 gpd.

Hyde Park.--Hyde Park (population 1,200) obtains water from Crum Elbow Creek. Consumption averages 50,000 gpd and rises to a maximum of 60,000 gpd. Treatment includes chlorination, coagulation, and filtration.

Millerton.--Millerton (population 953) is supplied by two wells, Du 166 and Du 167, and auxiliary springs. Consumption is reported to average 150,000 gpd. Chlorination is the only treatment.

Pawling.--Pawling (population 1,446) is supplied by a surface reservoir with a capacity of 30 million gallons, situated about 4 miles northwest of the village. Consumption is reported to be 150,000 gpd and maximum consumption is 170,000 gpd. Treatment consists of chlorination.

Pine Plains.--The Pine Plains Water Co. supplies water to 90 percent of Pine Plains (population 700) from dug and drilled wells. A dug well, Du 96, is 15 feet deep and is reported to yield 50 gpm. Two drilled wells, Du 97 and Du 680, yield 50 gpm and 220 gpm, respectively, from limestone. Average consumption is 45,000 gpd and the maximum is 60,000 gpd.



REFERENCE 9



CAMO LABORATORIES

25 Albany Post Road, Hyde Park, N. Y. 12538 914/229-8337

SAMPLE IDENTIFICATION:

PAGE 1 OF 2

A. 1008 - Cricket Hill F - T. Dorer

B. ~~1009 - Route 22 North~~ - T. Dorer

C. ~~1010 - Route 22 South~~ - T. Dorer

D. _____ I. _____

E. _____

Comments: _____

CLIENT: Mr. Robert J. Vrana
Assistant Public Health Eng.
Dutchess County Health Dept.
22 Market Street

FACILITY: Poughkeepsie, New York 12601

Dover Plains Samples

DATE REC'D December 17, 1979

LABORATORY No: 79-12-6581

PURCHASE ORDER No: _____

METHOD of ANALYSIS: EPA

REPORT DATE: January 31, 1980

AUTH. SIGNATURE: _____

LAB. DIRECTOR: _____

Rt. 22, Westside

	A	B	C	D	E	F	G	H	I
Chloride	10.0	27.5	12.5						
pH	6.3	4.0	6.7						
TOC	516	108	56						
Specific Conductance 2050		750	315 $\mu\text{m}/\text{cm}$						
Oil/Grease	1.6	3.4	<0.1						
Phenol	<2	<2	3.8						
PCB (ppb) 1248	<0.091	<0.042	*						
1254	<0.036	<0.041	*						
1260	<0.039	<0.036	*						
Iron	1191	405	30.6						
Chrome	<0.05	<0.03	<0.03						

ANALYSIS COMMENTS: *micromho's/per centimeter-($\mu\text{m}/\text{cm}$)

*Multiple interferences, peaks prevented the evaluation of

PCB peaks on the chromatogram. There was insufficient sample volume to rerun.

Results in mg/L unless noted otherwise.

INVOICE TO:

No. _____

TERMS: NET
AMT. DUE:



25 Albany Post Road, Hyde Park, N. Y. 12538 914/229-8337

SAMPLE IDENTIFICATION:

PAGE 2 OF 2

Mr. Robert J. Vrana
Assistant Public Health Engineer
Dutchess County Health Department
22 Market Street

DATE REC'D December 17, 1979

LABORATORY No: 79-12-6581

PURCHASE ORDER No:

METHOD of ANALYSIS: EPA

REPORT ~~DUE~~ DATE: January 31, 1980

AUTH. SIGNATURE:

LAB. DIRECTOR:

A 1008 - Cricket Hill Road - T Cover

B. 1009 - Route 22 Northg. - T. Dover

C. 1010 - Route 22 North G. - T. D. Over
1010 - Route 22 South H. - T. D. Over

D. _____

E.

Comments:

FACILITY 22 Market Street
Poughkeepsie, New York 12601

Dover Plains Samples

[illegible]

ANALYSIS COMMENTS: Please Note - All (<) signs indicate the lowest detectable concentration due to the methodology or instrumentation.

INVOICE TO:

No _____

TERMS: NET
AMT. DUE

APPENDIX B

UPDATED NYSDEC/DHWR
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 2a

REGION: 3

SITE CODE: 314029

EPA ID: NYD980508139

NAME OF SITE: Route 22 Westside

STREET ADDRESS: Route 22 (1.75 miles south of Dover Plains)

TOWN/CITY: Dover

COUNTY: Dutchess

ZIP: 12522

SITE TYPE: Open Dump-

Structure-

Lagoon-

Landfill- X

Treatment Pond-

ESTIMATED SIZE: 1

Acres

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER NAME..... Whitney Aggregates, Inc.

CURRENT OWNER ADDRESS..... c/o Mr. James Hosie, Rhinebeck, New York

OWNER(S) DURING USE..... Mr. Fred Lee

OPERATOR DURING USE..... Town of Dover

OPERATOR ADDRESS..... Dover Plains, New York 12522

PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From None suspected To

SITE DESCRIPTION:

The site was a municipal landfill used from 1 to 8 years. The site is covered and very well vegetated (supporting trees). No hazardous waste is documented or alleged to have been disposed of at the site. The site lies immediately west of Route 22 and east of Penn-Central railroad tracks. A stream and small wetland is contiguous with the southern border. A marsh and intermittent stream is contiguous with the northern boundary. The area is located in a wooded, sparsely populated area south of Dover Plains. A Phase I has been completed.

Preliminary studies are currently recommended to determine if the site should be delisted to Bureau of Municipal Waste (Part 360) jurisdiction or a Phase II conducted.

HAZARDOUS WASTE DISPOSED:
TYPE

Confirmed-

Suspected-

QUANTITY (units)

None suspected

SITE CODE: 314029

ANALYTICAL DATA AVAILABLE:

Air- Surface Water- X Groundwater- Soil- Sediment- None-
(Leachate)

CONTRAVENTION OF STANDARDS:

Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE...: State- Federal-
STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under Design- In Progress- Completed-

NATURE OF ACTION:

GEOTECHNICAL INFORMATION:

SOIL TYPE: Kendias Silty Loam

GROUNDWATER DEPTH: 5-10 ft

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

No hazardous waste disposal suspected. Leachate has been observed emanating from the site into a marsh. A small wetland abuts the southern border.

ASSESSMENT OF HEALTH PROBLEMS:

<u>Medium</u>	<u>Contaminants Available</u>	<u>Migration Potential</u>	<u>Potentially Exposed Population</u>	<u>Need for Investigation</u>
Air	Unlikely	Unlikely	No	Low
Surface Soil	Unknown	Likely	Yes	Medium
Groundwater	Unknown	Likely	Yes	Medium
Surface Water	Identified	Highly likely	Yes	High

Health Department Site Inspection Date: 11/84

MUNICIPAL WASTE ID: 14-S-76